What Reading Likes About Truck Leasing

February 22, 1960

RAILWAY AGE *weekly*

Big power unit slides ↑ into refrigerator car

Mechanical Reefers

Part II of Special Report
Latest ideas in cooling systems and controls

RD60 1116
McCARTNEY LIBRARY
GENEVA COLLEGE
BEAVER FALLS PA

60 cents A Simmons-Boardman TIME-SAVER Publication

Red Russia's railroads get the green light

If you think the great era of railroad building is gone, you should see Russia today!

The Russians are feverishly building new railroads . . . improving existing trackage . . . adding modern equipment — electric and diesel locomotives, roller-bearing cars, automatic coupling, welded rail and plenty of new and improved rolling stock.

And while Russia's railroads are by no means up to American railroad standards, they're moving ahead fast.

* * *

In the United States, by contrast, public policies tend to reflect indifference to the railroads, while they encourage railroad competition.

Railroads are burdened with over-regulation and discriminatory taxation — while their competition uses highways, waterways and airways built and maintained by the government.

* * *

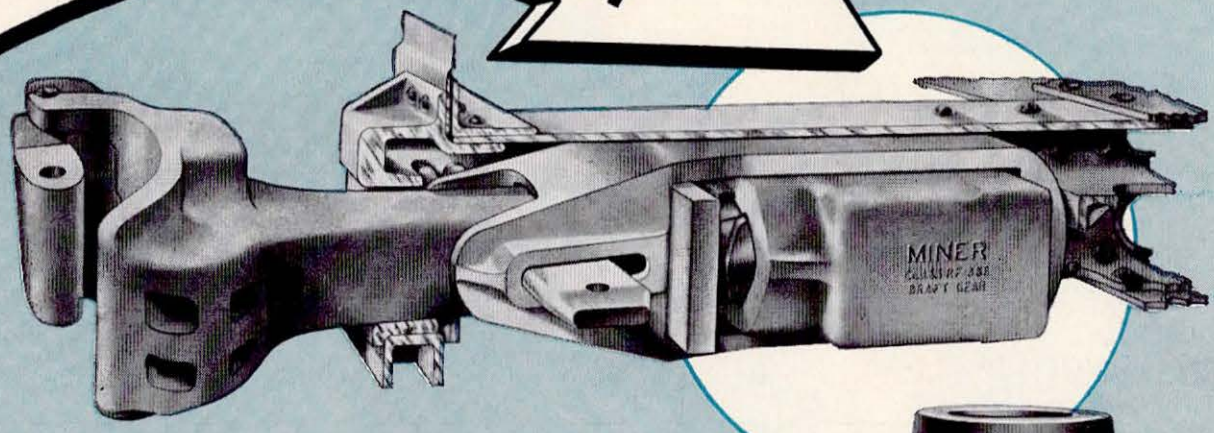
The railroads ask no special favors. All they ask is the equality of treatment and opportunity fundamental to the American concept of free enterprise. Granted this, the public would then be *assured* of the efficient, low-cost rail service which a dynamic economy and national defense demand.

ASSOCIATION OF

AMERICAN RAILROADS

WASHINGTON 6, D. C.

APPROVED FOR
UNLIMITED APPLICATION



MINER

CLASS
RF-333
Friction Draft Gear

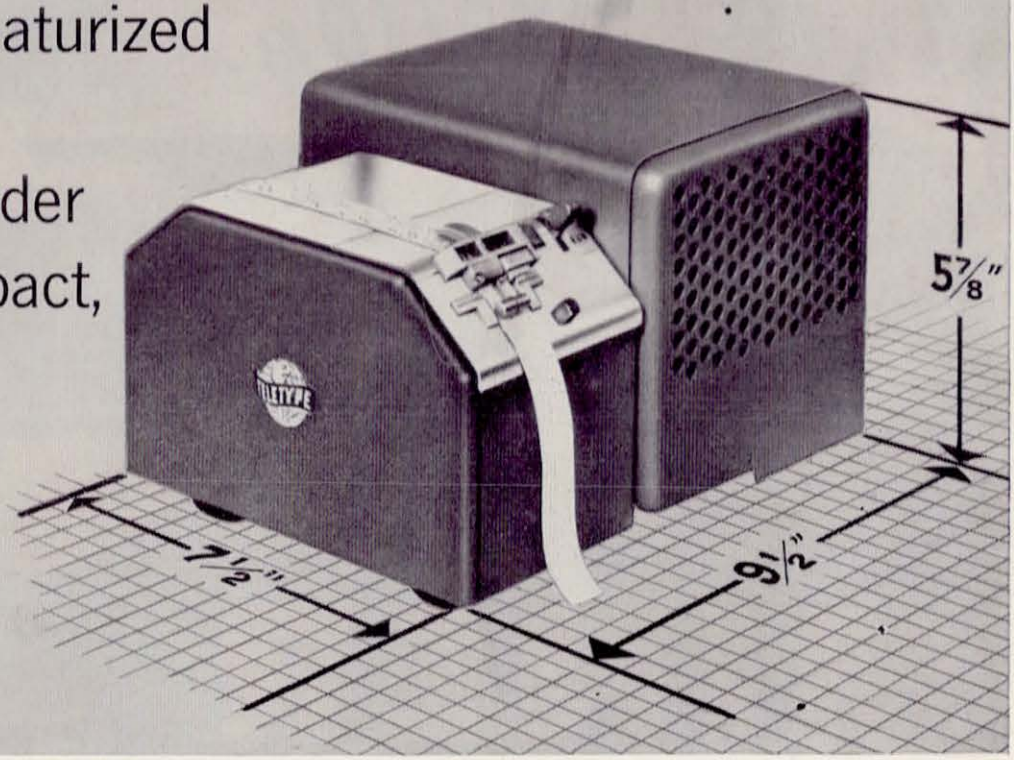
This Friction Draft Gear has fully demonstrated its protective qualities, and more and more cars handling special lading are being equipped with this super-capacity friction gear.

To ensure safer movement of every type of lading, use the service-tested Class RF-333 Friction Draft Gear.

W. H. MINER, INC. CHICAGO

40% reduction in size and weight...

New miniaturized Teletype Tape Reader has compact, space-saving design



Here is a new tape reader set from Teletype Corporation—the Model 28 miniaturized LXD. It features a 40% reduction in size and weight. This new space-saver set is completely compatible with other Teletype communications equipment. It features facilities for sequential (serial) transmission, with optional contacts available for multi-wire output, and it is designed to read either chadless or fully perforated tape.

The Model 28 miniaturized LXD tape reader is made, as is all Teletype equipment, for round-the-clock, day-in, day-out service with minimum maintenance. The unit is equipped with an all-metal clutch that requires lubrication only once or twice a year, and operates with precision accuracy for continuous or intermittent transmission.

New Brochure A 4-page brochure on the new Teletype miniaturized LXD tape reader is available upon request. Write to Teletype Corporation, Dept. 45B. 4100 Fullerton Ave., Chicago 39, Ill.

Specifications

Speed: . . 100 WPM (gears available for slower speeds)
Tape levels: . . . . . 5 or 6
Dimensions: . . . . . 5⅞" H, 7½" W, 9½" D.
Weight: . . . . . Approx. 15 lbs. net
Motor: . . . . . Synchronous, 115 V., 60 Cy.
Finishes: . . . . . Gray-green or custom

TELETYPE®
CORPORATION
SUBSIDIARY OF *Western Electric Company* INC.

RAILWAY AGE *weekly* February 22, 1960 • Vol. 148, No. 8

Week at a Glance

Departments

As the Publisher Sees It ... 33
Current Publications 29
Current Questions 19
Dividends Declared 32
Freight Car Loadings 31
Letters from Readers 25
New Equipment 31
New Products Report 22
People in the News 28
Railroading After Hours 18
Railway Market 31
Supply Trade 29
The Action Page 38
Watching Washington 10
You Ought to Know 36

• Editorial and Executive Offices New York 7, 30 Church St.

JAMES G. LYNE, Editor
ROBERT G. LEWIS, Publisher
Executive Editor .... Joe W. Kizzia
Managing Editor .... Fred C. Miles
News Editor ..... Luther S. Miller
Traffic-Transportation .. G. C. Hudson
Mechanical
C. L. Combes F. N. Houser, Jr.
Signaling & Communications
Robert W. McKnight Robert J. Barber
Associate Editors
Rod Craib Harry M. Grayson, Jr.
Librarian ..... Edith C. Stone
Editorial Assistant .... June Meyer
Art Director.....Russell F. Rypsam
Design and Layout .. Joel Petrower
Production Manager..Joseph J. Menkes

• Chicago 3, 79 West Monroe St.
Western Editor ..... Gus Welty
Regional News .... William V. Tuite
Mechanical .... Norman E. Gillespie
Engineering ..... M. H. Dick
R. E. Dove E. W. Hodgkins, Jr.
Purchasing & Stores ..... Bert Enos
Editorial Assistant .. Wanda Brown

• Washington 4, National Press Bldg.
Washington Editor .. Walter J. Taft

Railway Age, established in 1856, is indexed by the Business Periodicals Index, the Engineering Index Service and the Public Affairs Information Service. Name registered in U.S. Patent Office and Trade Mark Office in Canada.

Published weekly by the Simmons-Boardman Publishing Corporation at 440 Boston Post Road, Orange, Conn. Second-class postage paid at the Post Office at Orange, Conn. James G. Lyne, chairman of the board; Arthur J. McGinnis, president and treasurer; Duane C. Salisbury, executive vice-president; George Dusenbury, vice-president and editorial and promotion director; Robert G. Lewis, Joe W. Kizzia, M. H. Dick, M. J. Figa, R. C. Van Ness, vice-presidents.

Freas hits 'umbrella' rates ..... p. 9

The commissioner has chided ICC's Division 3 for a sea-land rate structure decision that he considers "umbrella rate-making," thus conflicting with the rate-freedom provision of the 1958 Transportation Act.

Cover Story—Mechanical reefers: Part II p.12

Constant research and development work goes into the nation's mechanical refrigerator car fleet. Among the objectives of such work are lower cost components, greater economy in operation, and units that provide more space for payloads. Here's what the manufacturers are doing to build peak efficiency and performance into mechanical reefers.

Cover Story—Reading leases trucks for flexibility p.24

About 80% of the 250-odd vehicles in the road's highway fleet are leased, rather than owned outright. Thus, it says, up-to-date equipment is always available, size of the highway fleet can be adapted to needs, and capital is not tied up.

Truck terminal thinks for itself p.26

The terminal includes basic innovations in freight handling techniques and facilities that seem applicable to many railroad freighthouses.

Washington hears aid plea p.33

A delegation of eastern railroad executives, one state governor and a number of mayors went to Washington last week to state the case for federal assistance to communities burdened with commutation problems. They were "encouraged," they said, by the reaction of Congressional leaders and others.

Arbitration talks take shape p.34

"Ground rules" for arbitration in the BLE's wage-demand dispute are being laid in Washington this week. Meanwhile, industry sources see initial move on work rules due soon after March 1.

The Action Page—Scared to talk about transport? p.38

The lack of public debate on this country's colossal and undisciplined expenditures for transportation is inexplicable. This silence raises the suspicion that U.S.A. opinion leaders do not want to clash with the special interests that thrive on the current transportation chaos.

The Railway Educational Bureau

(COOPERATING UNDER CONTRACT OR SPECIAL AGREEMENT WITH 85 RAILROADS)

STOP! THINK! STUDY CLEARS THE ROAD TO PROGRESS

D. C. BUELL, Director

Omaha, Neb.

February 15, 1960

Mr. Robert G. Lewis, Vice President
Simmons-Boardman Publishing Corporation
30 Church Street
New York 7, N. Y.

Dear Mr. Lewis:

Mrs. Buell, Dad's associates at The Railway Educational Bureau, and especially myself, want you to know how grateful we are that the Simmons-Boardman Publishing Corporation will carry on Dad's work of many years with the American railroads.

The close relationship between The Railway Educational Bureau and Simmons-Boardman over the years substantiates the decision for Simmons-Boardman to take over the work of the Bureau. The combination of the efforts of your editorial staff and the trained staff of this Bureau make a logical combination for continued and expanded efforts for training and educational work in the railway field.

All of us wish you every success in this new undertaking and in the future growth and development of these services to the railroads.

RCB:lw

Very sincerely,

Richard C. Buell

Richard C. Buell

Simmons-Boardman is proud to announce that the Railway Educational Bureau has joined its organization.

We wish to return Mr. Buell's salute, and extend to our new associates at the Bureau a most hearty welcome.

The Publishers
Simmons-Boardman Publishing Corp.
30 Church Street, New York 7, N. Y.

Week at a Glance CONT.

Current Statistics

Operating revenues	
12 mos., 1959	$9,826,128,939
12 mos., 1958	9,564,940,702
Operating expenses	
12 mos., 1959	7,704,573,256
12 mos., 1958	7,544,050,298
Taxes	
12 mos., 1959	1,047,194,279
12 mos., 1958	957,258,608
Net railway operating income	
12 mos., 1959	749,476,425
12 mos., 1958	762,355,862
Net income, estimated	
12 mos., 1959	574,000,000
12 mos., 1958	603,000,000
Average price railroad stocks	
Feb. 16, 1960	99.38
Feb. 17, 1959	107.01
Carloadings, revenue freight	
5 wks., 1960	2,974,444
5 wks., 1959	2,840,966
Freight cars on order	
Feb. 1, 1960	48,170
Feb. 1, 1959	29,470
Freight cars delivered	
1 mo., 1960	2,849
1 mo., 1959	1,940

Advertising Sales Department

Duane C. Salisbury—director of sales

New York 7, N. Y., 30 Church st., WOrth 4-3060
J. S. Vreeland—vice president;
F. T. Baker—district manager;
J. C. Lyddy—district manager

Chicago 3, Ill., 79 W. Monroe st., RAndolph 6-0794
J. R. Thompson—vice president;
J. W. Crossett—district manager;
Hale Carey

Cleveland 15, Ohio, 1501 Euclid ave., MAin 1-4455
H. H. Melville—vice president;
H. M. Blunt—district manager

Pittsburgh 19, Pa., Suite 203, Carlton House GRant 1-8186
C. J. Fisher—district manager

Atlanta 9, Ga., 22 Eighth st., N. E., TRinity 2-6720—J. S. Crane

Dallas 19, Tex., 3908 Lemmon ave., LAkeside 1-2322—Joseph Sanders

Los Angeles 17, Cal., 1336 Wilshire blvd., HUbbard 3-0390
Bayne A. Sparks—vice president

San Francisco 11, Cal., 244 California st., EXbrook 7-4990
D. S. Clark—district manager

London E.C. 1, Eng., 8/9 Clerkenwell Green
Sibley-Field Publishing Co., Ltd.

Frankfort am Main (16), West Germany
Wittelsbacher Allee 60
Georg J. Linder,

Tokyo, Japan
Shadan Hojin, 14
2-Chome Marunouchi
George E. Olcott

Subscription to railroad employees only in U.S. possessions, Canada and Mexico, $4 one year, $6 two years, payable in advance and postage paid. To railroad employees elsewhere in the western hemisphere, $10 a year. In other countries, $15 a year. Single copies 60¢ except special issues. Address all subscriptions, changes of address, and correspondence concerning them to: Subscription Dept., Railway Age, Emmett St., Bristol, Conn.

Change of address should reach us three weeks in advance of next issue date. Send old address with new, enclosing, if possible, your address label. Post Office will not forward copies unless you provide extra postage.

Circulation Dept.: R. C. Van Ness, Director of Circulation, 30 Church St., New York 7, N. Y.

POSTMASTER—SEND FORM 3579 to EMMETT ST., BRISTOL, CONN.

Printed at the Wilson H. Lee Co., Orange, Conn.

Short and Significant

Lowest number of passenger fatalities . . .

in their history was the railroads' 1959 record. The AAR last week called attention to the record, pointing out that there was only one 1959 passenger fatality from a train accident. Nine other passengers were killed in "train-service" accidents—those over which the railroads, as AAR put it, "have little or no control such as in cases of people attempting to board or leave moving trains." Last year's accidents to employees resulted in 168 deaths and 15,750 injuries to employees on duty. These compared with 180 employee fatalities and 12,878 injuries in 1958.

Commissioner Arpaia's resignation . . .

from the ICC was announced last week by the White House. The announcement said the commissioner advised the President that he wanted to resign for personal reasons. The resignation will become effective March 16.

A double-bottom trailer terminal . . .

will be built by Cooper-Jarrett, Inc., on land adjacent to the Illinois State Toll Road Highway. The million-dollar terminal, when completed, is expected to facilitate the company's double-bottom (two trailers behind a single tractor) operation. With the opening of Ohio and Indiana toll roads this year to double-bottom use on a trial basis, only about 110 miles in Ohio and Pennsylvania remain closed to double-bottoms on the through route between Chicago and New York and Boston.

Contract rates are 'urgently required' . . .

to halt "the steady erosion of rail traffic by private and public competition," New York Central told the ICC last week. In a brief filed in support of a proposed contract rate on rugs and carpeting between Amsterdam, N.Y., and Chicago, NYC said such rates would permit the road to "effect savings, because a train is uniquely adapted to reducing unit costs when carrying heavy volume; utilize these savings to absorb increased expenses—or, as an alternative, to offer shippers rate reductions in return for a guaranteed volume. . ." The ICC has suspended the proposed NYC rate until April 29 (RA, Oct. 5, 1959, p. 7).

Prestressed concrete crosstie tests . . .

will begin early next month on a section of Seaboard Air Line track near Tampa, Fla. Plans call for installation of 600 ties over a quarter-mile stretch. Both this test and one planned by ACL will be made on track laid with continuous welded rail (RA, Nov. 9, 1959, p. 20).

"And, at the recommendation of our two most traveled passengers, I hereby move that Chipman Weed Killers be used on our railroad."

A broad line of Chipman weed, grass and brush killers is available. Each is formulated to solve specific vegetation control problems. Most widely used are these trade-name products:

Atlacide • Atlas "A" • Chlorax • Chlorea • Methoxone-Chlorax
TCA-Chlorax • Methoxone-Chlorea • Chipman Brush Killer

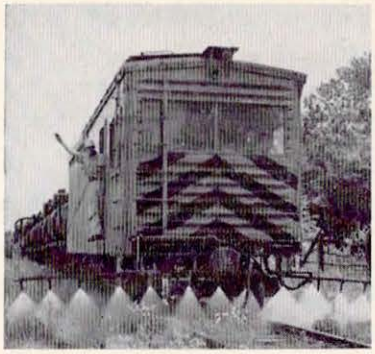
These chemicals, as well as our special application service and equipment, are backed by almost a half century of extensive railroad weed control experience.

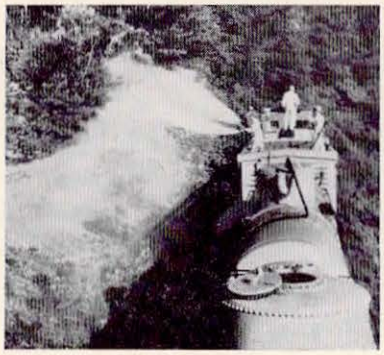
Let us solve *your* weed problem with the *right* chemicals and application service. Your inquiry will receive prompt attention.

CHIPMAN
Chemical Company, Inc.

BOUND BOOK, NEW JERSEY

World Leader in Chemical Weed Control Since 1912





Freas Hits 'Umbrella' Rates

► **The Story at a Glance: The ICC's Division 3 has made a competitive-rate decision which Division Chairman Freas considers "umbrella ratemaking," and thus contrary to what Congress had in mind when it enacted the 1958 Transportation Act's rate-freedom provision.**

The decision approves the sea-land rate structure maintained by Pan-Atlantic Steamship Corp. and some 250 truckers. Pan-Atlantic has asserted that the stake is survival of water-carrier service in the Atlantic-Gulf coastwise trade.

The approved truck-water rates are generally lower than competitive all-rail rates, but Division 3 brushed aside railroad protests that the differentials were not justified by cost evidence.

It was his similar interpretation of the cost evidence which prompted Commissioner Freas to chide the division's majority, consisting of Commissioners Walrath and McPherson. In a dissenting-in-part expression, Mr. Freas reminded his colleagues that "umbrella ratemaking" is a practice "which it is my understanding the Congress does not wish us to pursue and one which the Commission has said it does not sanction."

The sea-land rate structure which Division 3 has approved embraces about 450 joint truck-water commodity rates applicable for so-called "fishyback" service—a coordinated operation in which highway trailer bodies are transported over both motor-carrier and water-carrier portions of the through routes. The title case is I&S No. M-10415, and the report also covers 23 other proceedings.

The rates apply between numerous points in the East, South and Southwest. Pan-Atlantic's water-carrier operations are generally between the ports of Boston, Mass., New York, Philadelphia, Pa., Baltimore, Md., Georgetown, S.C., Charleston, Jacksonville, Fla., Miami, Tampa, Port St. Joe, Panama City, Pensacola, Mobile, Ala., New Orleans, La., Galveston, Tex., and Houston. Evidence in the case indicates that Pan-Atlantic's operating expenses for the "fishyback" service are from $10 to $12 per ton less than the costs of its break-bulk operations.

While the report shows that Division 3's majority had the 1958 act's rate-freedom provision in mind, the division nevertheless seems to have considered other provisions of the act more pertinent to the case at hand. These provisions are the rate-making rule applicable to water carriers which is in section 307 (f); section 307 (d), which gives the Commission authority to prescribe joint rail-water rates and routes with "reasonable differentials"; and section 305 (c), which provides that differences in rates of a water carrier from those of a railroad shall not be deemed to constitute an unfair or destructive competitive practice.

The rate-making rule in section 307 (f) is like rate-making rules in other sections of the act which are applicable to railroads and truckers. It calls for Commission consideration of the effect of proposed rates on the movement of traffic, the public need for water carrier service, and the water carriers' need for adequate revenues.

The 1958 act's rate-freedom provision, which is section 15a(3), says rates of a carrier shall not be held up to a particular level to protect the traffic of any other mode of transportation—"giving due consideration to the objectives of the national transportation policy."

Division 3's majority seems to have considered this quoted clause and sections 305(c) and 307 as most important insofar as the present case is concerned. While conceding that section 307(d)'s differential provisions were not controlling, it nevertheless relied specifically on them to approve the differentials.

It said provisions of the section "appear indicative of Congressional intent that, where necessary to permit an essential, economically operated water carrier to participate in the economical movement of traffic, the service in connection with the water

IS THERE A MAN IN THIS CAB? . . .

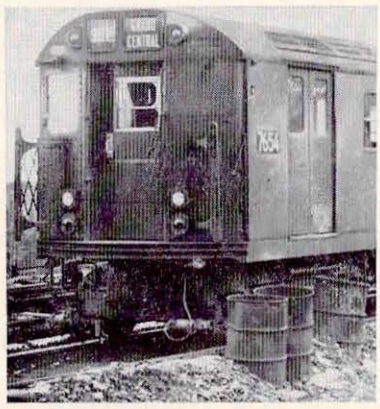
The New York Herald Tribune, which took the picture, says there is not.

The New York City Transit Authority, which owns the train, says they "are making tests, but have not reached the point of operating without a motorman in the cab."

In either case, there is no dispute about the major point: the New York City Transit Authority is conducting tests that are expected to make possible remote control operation of shuttle trains between Grand Central and Times Square (RA, Feb. 1, p. 34).

The tests, which are being conducted on a stretch of the BMT line in Brooklyn, use equipment developed by Union Switch & Signal, General Railway Signal, and Westinghouse Air Brake.

If tests indicate that the project is feasible, the shuttle line may become a pilot project for the whole system.



Herald Tribune Photo by Nat Fein

carrier should be accorded some advantage in the form of lower rates."

Previously, the report had discussed evidence relating to service, noting railroad contentions that sea-land transit time is "as fast or faster than all-rail." A railroad study indicated that actual times in transit over all-rail routes was somewhat longer than times shown in advertised rail schedules.

The latter offered five-day service from New York to Jacksonville, four days from Philadelphia to Tampa, five to seven days from Baltimore to Miami, and four to six days from these origins to Dallas and Fort Worth. The time-in-transit study, using random sampling technique, showed an average transit time by rail of 10 days from New England to the Southwest, 9 days from New England to the South, 9 days and 8 days from trunk line territory to the Southwest and South, respectively.

The report nevertheless included a warning to railroads which might be considering rate cuts to meet the competition of the approved truck-water rates. Such railroads, the report says, "should take into account the effect thereof upon the national transportation system and the implications of the national transportation policy, consideration of which is required by the established rules of rate-making."

The division did require cancellation of a few of the truck-water rates which were found to be below out-of-pocket costs. The report seems to represent the view of only one member of the division—Commissioner Walrath. A notation says Commissioner McPherson "concurs in the result."

Commissioner Freas opened his separate expression with reference to the "vital importance" of relative costs in competitive rate cases. While cost evidence was of the sample type, it indicated to him that the railroads were low-cost carriers in at least half the rate situations involved. He found service advantages and disadvantages similarly distributed—so a general finding that inherent advantages are with any particular mode of transportation cannot be supported." Mr. Freas also said:

"Except as a means of protecting the high-cost form of transportation, I cannot understand approval of differentials under the rail rates in those instances in which respondents are the high-cost mode. That water transportation may need protection is not here controlling. It is for the Congress to provide special relief if a necessary form of transportation requires it; it is for us to deal ratewise with all modes in accordance with the standards given us by the Congress.

"Approval of the differential to protect the high-cost form of transportation clearly does not comport with the provisions of section 15a(3), nor with the express provisions of the national transportation policy. While the policy is cited in the report, I do not understand that it is contended that it by its express terms authorizes the fixing of a differential under the circumstances here. Rather, the statutory basis for the report seems to rest on a construction of section 305(c)."

Commissioner Freas, as he puts it, finds nothing in that section "to suggest that the Congress intended to immunize water carriers against charges of unfair or destructive competitive practices in all instances in which their rates are lower than those of the rail

(Continued on page 18)

Watching Washington *with Walter Taft*

• **TOP-PRIORITY ITEMS** on its legislative program have been identified by the Railway Labor Executives' Association. The priority list includes eight proposals—none of which is also a management proposal.

THIS DOES NOT MEAN that RLEA supports none of management's proposals. It has supported some of them, such as the calls for adequate user charges on publicly-provided transport facilities, repeal of the fare tax, revision of other tax laws to stimulate capital expenditures and remove inequities, and repeal of the Motor Carrier Act's agricultural exemptions, or extension of like freedom from regulation to rail transportation of agricultural products.

EVIDENTLY, however, the labor leaders do not consider these of "special interest to railroad workers." That characteristic seems to have been what qualified proposals for inclusion on RLEA's list.

THE SPECIAL-INTEREST PROPOSALS include several of a regulatory nature. These call for emasculation of the 1958 Transportation Act's train-off provisions, tighter accident-reporting requirements, a more restrictive hours-of-service law, and new ICC authority to prescribe rules for the operation of track motor cars and standards for maintenance of tracks and bridges and such "vital parts" of cars as wheels, axles, journals, trucks, underframes, couplers and draft gears.

ALSO ON THE LIST is a proposal to make employee payments under the Railroad Retirement Act deductible in income-tax returns, and another to liberalize the retirement system's benefits by adding hospitalization arrangements for retired railroaders. The former could pave the way for increased-benefit legislation, i.e., the deductions would tend to offset increased payroll taxes levied on employees.

THE HOSPITALIZATION PLAN ties in with a general labor program to provide such benefits for retired persons receiving annuities under the Social Security System. RLEA says it is seeking "to bring about similar coverage of railroad employees, and to extend coverage to retired people on disability and the widows and survivors between the ages of 60 and 62."

THE TRACK-CAR PROPOSAL is scheduled to come up for public hearing this week before the Surface Transportation Subcommittee of the Senate Committee on Interstate and Foreign Commerce. The proposal is embodied in a Senate bill, S.1425, which is sponsored by Chairman Magnuson of the parent committee and about 20 other senators.

The N&W...where Brenco Bearings are on the move!

Westward to the steel mills and the lake ports of Ohio... eastward to the coal piers at Norfolk, Virginia... the Norfolk and Western Railway carries the abundance of the six-state "Land of Plenty."

Helping this great railroad keep the tonnage moving are Brenco Bearings... products of Brenco Incorporated, where bearing specialists are dedicated to the task of producing better freight car bearings at lower cost.

Brenco Bearings... over a million in service!

BRENCO INCORPORATED

316 East Main Street, Richmond, Virginia

BRENCO
BEARINGS

What Makes a Mechanical Reefer Tick?

PART II OF A SPECIAL REPORT

Equipment manufacturers have been working for years to build peak efficiency and performance into mechanical refrigerator cars. New developments make their appearance every day.

A strong incentive to action is the potential market represented by about 110,000 cars now cooled by ice and brine.

Although fleet operators and shippers want more mechanical refrigerator cars, a big stumbling block is cost. Mechanical (RP) reefers cost $11,000 to $15,000 more than conventional ice-bunker (RS) reefers. As one fleet spokesman said: "When I peer into a mechanical car's equipment compartment I'm real disturbed to know that what I'm looking at costs more than a Cadillac."

Objectives in equipment development, however, go far beyond a mere search for lower cost components. More economy in operation is being sought. Units that are more compact and weigh less are needed to boost revenue space and payload. Tighter cars with better insulation are essential. And trouble-free performance is indispensable for equipment that must operate unattended for hundreds of hours to protect costly high-priority shipments.

Progress toward these objectives has been rapid in the past couple of years. Experience with equipment operated millions of car miles in the fast-growing mechanical refrigerator car fleet has spotlighted the weaknesses and guided designers in overcoming deficiencies. The contributions of the equipment manufacturers in improving performance were acknowledged by the Pacific Fruit Express when it said: "Trips per power plant failure increased from 8.96 to 18.5 and [trips] per refrigeration equipment failure [rose] from 6.82 to 20.0, 1959 over 1956. An appreciable part of credit must be given manufacturers who supplied more reliable equipment."

Two weeks ago Railway Age showed why the nation's mechanical refrigerator car fleet has more than quadrupled since 1955 (RA, Feb. 8, pg. 14). Here is an up-to-the-minute report on what goes into the cars that make up this burgeoning type of railroad rolling stock.

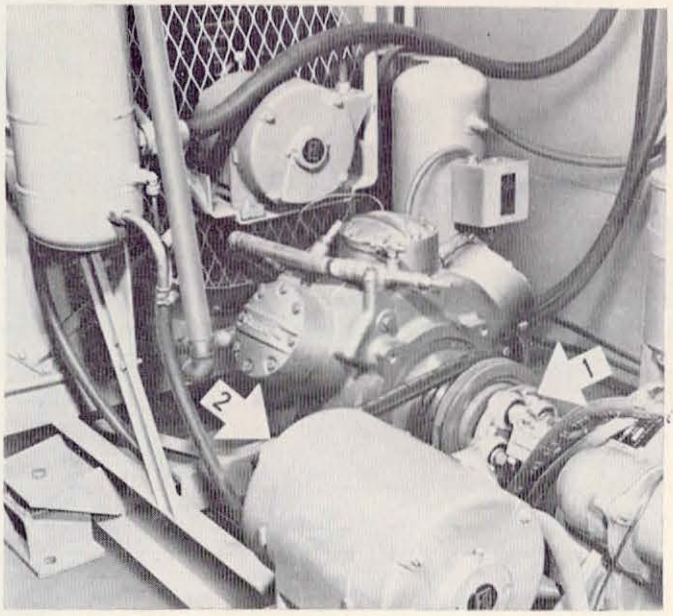
HIGH AND LOW TEMPERATURES in two-compartment refrigerator car are maintained by Thermo-King equipment. Both condensing and evaporator units in "A" end take 63 in. of car length.

TWO-COMPARTMENT DESIGN

The latest refrigeration unit to be introduced by Thermo King is the "RYD-77," powered by a diesel engine. It consists of a condensing section and an evaporator section. The condensing section, which can be installed inside the car or underneath it, includes the engine, compressor, condenser coil, radiator, and alternator. The evaporator section is mounted on an insulated bulkhead at the end of the car.

The installation shown in an accompanying illustration is one in which it was desirable to have both a low and a high temperature compartment. When both condenser and evaporator sections are installed inside the car, as shown, they occupy 63 in. of the car's length. On an undercar installation, the evaporator takes only 22 in. of space.

The four-cylinder diesel engine is directly connected to the Thermo-King four-cylinder, aluminum compressor. Using No. 2 fuel, consumption averages 0.6 gallon per hr.



ENGINE-COMPRESSOR SHAFTS are joined by coupling (Arrow 1) in Carrier direct-drive system. Belt-driven alternator (Arrow 2) powers fans, becomes motor to drive compressor on standby.

CARRIER DIRECT-DRIVE SYSTEM

Last year the Carrier Corporation developed a line of direct-drive engine-compressor units for mechanical refrig-

erator cars. It includes systems with two-, three- or four-cylinder compressors for cars of various sizes and different temperature ranges. The alternator-motor transmission formerly used has been eliminated.

The units cut diesel fuel costs in two ways, according to Carrier. First, by powering the compressor directly from the engine, electric transmission losses are avoided. Second, when the system is not under full load, controls reduce the engine speed to the most economical cruising speed.

Another device provides better humidity control and also produces additional fuel savings. The device is a control system that unloads one or more of the compressor's cylinders when car temperature reaches the thermostat setting. With less compression of refrigerant, evaporator coil temperature is held within a few degrees of inside car air temperature. Thus, less moisture is condensed out, air circulation continues and humidity is held at high levels.

With this system an alternator is belt-driven by the engine to supply power for condenser and evaporator fans. On standby power, the alternator becomes a motor to drive the compressor through the same belt. The engine clutch is disengaged under these conditions.

Most Carrier units in service are either 12½-kw units powered by 18-hp Witte engines, or 20-kw units with Detroit Diesel's 34-hp engines. Carrier research determined that the 12½-kw unit is of sufficient capacity to handle mechanical refrigerator car requirements under all U. S. conditions. The 20-kw unit is available to meet requirements for faster temperature pulldown.

THREE-CYLINDER COMPRESSOR in this Pacific Fruit Express installation was designed specifically for railway use. It is a Trane Model B hermetic unit with unloaders.

TRANE EQUIPMENT FOR PFE

Research in Trane laboratories in recent years has concentrated on development of simpler, more efficient refrigeration equipment. The latest design is being installed in 1,000 Pacific Fruit Express cars now under construction.

The refrigeration system for these cars has a 10-ton-capacity Trane compressor-condenser assembly with automatic controls. Electric heating is also furnished.

To cool the loading space, a portion of the air is circulated directly through the load. Air is drawn upward over an evaporator cooling coil by a centrifugal-type blower and discharged into a plenum space provided by a false ceiling. Cold air is then circulated into the body of the car through perforations in the ceiling, side flues and under the floor racks. Defrosting of coils is automatic and requires 30 min.

A diesel-electric system is used with the alternator furnishing power to operate the compressor, fans, heaters and controls. The engine, shock-mounted to withstand 15-G jolts in transit, is mounted on rails for easy removal. The car carries 500 gallons of diesel fuel, enough for 20 days.

EQUIPCO DIRECT-DRIVE UNIT

Pilot models of a direct-drive heating and cooling unit developed by the Equipment Specialties Division of Union Asbestos & Rubber Co. are now being field tested. In this Equipco design the compressor is driven directly by a Detroit Diesel Model 2-53 engine with two-speed control through a magnetic clutch. The compressor is also equipped with an electric motor for standby operation. A belt-driven generator furnishes power for fans, heating and defrosting, battery charger, and for supplying current to the magnetic clutch through a selenium rectifier and transformer.

SPLIT-PACKAGE SYSTEM

Equipco has made production models of its split-package system for Pacific Fruit Express. Test cars with this system have been set up by Fruit Growers Express, Merchants Despatch Transportation and American Refrigerator Transit.

This system consists of a primary diesel-electric refrigeration package and a secondary cooling unit. The primary package is a complete condensing and evaporating unit for placement in the car's machinery compartment. The evaporator is used to cool a secondary heat-transfer liquid, trichlorethylene. The liquid is pumped through a circulating system connecting the refrigeration package to the cooling coil inside the car lading space. An immersion heater in the circulating system fluid produces car heating when required.

WITTE DIESEL ENGINE

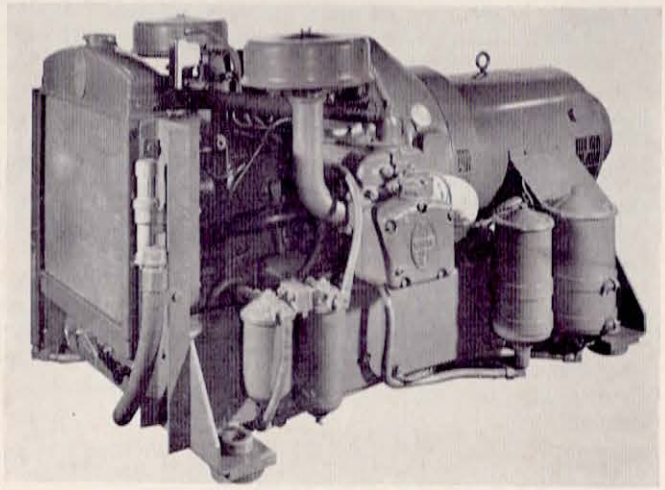
As a result of studies of mechanical refrigerator car power requirements, a two-cylinder horizontally-opposed diesel engine of 100 cu. in. displacement was developed by the Witte Engine Works in 1949. Designated the "100" model by Witte (part of the Oil Well Supply Division, United States Steel Corporation), the engine is a 4 in. by 4 in. design producing 18 hp.

This engine, powering a 12½-kw generator, has for several years demonstrated its capacity to handle the requirements of either 40-ft or 50-ft mechanical refrigerator cars, according to the builder. As of the middle of last month, 566 Witte engines were in such service, and 850 were on order for cars to be built this year.

"Mechanical refrigeration on railway cars may be likened to driving an automobile over a mountain and across the plains," says Witte. "Mountain driving is equivalent to the pull-down of the car temperature from summer heat—when the maximum output is needed from the power source. After the temperature is pulled down in the car, the power needed resembles level road driving of an automobile where 'overdrive' can be employed, resulting in less wear and higher fuel economy. This type of running pattern is accomplished by two-speed operation of an engine-generator unit or by two-speed direct-mechanical operation of a compressor. In the case of the Witte series '100' engine, this means a reduction from 1,800 rpm (1,200 ft per minute piston speed) to 1,200 rpm (800 ft per minute piston speed). Due to its short stroke (4 in.) the Witte engine's speed is considered to be very conservative at both speeds.

"Quiet operation of the power unit in the refrigerator

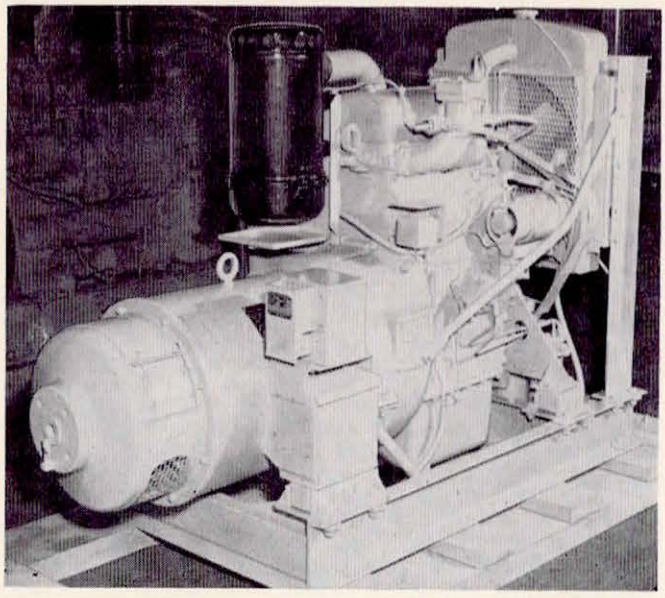
CONTINUED ON PAGE 14



WITTE MODEL 100 18-HP Diesel with horizontally-opposed cylinders turns 12-½-kw generator that supplies electrical energy to power equipment in both 40-ft and 50-ft cars.

car is necessary because the cars are sometimes 'spotted' on sidings near residential areas. Our engines meet this requirement easily because of their 4-cycle, water-cooled design and effective muffling.

"Witte engine's average fuel consumption over a year is approximately 20% less than the next larger unit which has been used previously." [Figures reported in late 1958 by this company showed consumption to be 0.81 to 0.9 gal per hr.]



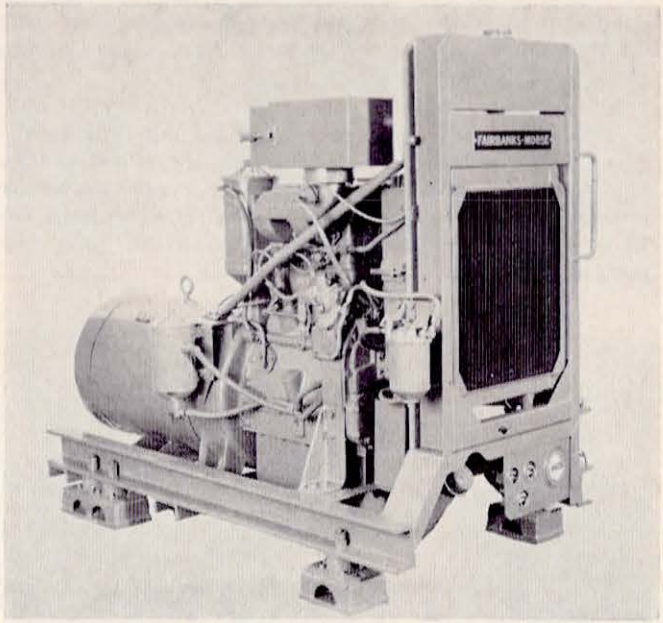
DETROIT DIESEL'S SERIES 2-71 engine is a two-cylinder two-cycle power plant available in two models, one for a 15-kw generator, the other for 20-kw output.

DETROIT DIESEL POWER

In early 1948 the Detroit Diesel Engine Division, General Motors Corporation, pioneered development of diesel engine-generator sets for mechanical refrigerator cars. Research included studies of vibration, car humping, shock forces and electrical circuitry.

Out of this research Detroit Diesel developed the current 2-53 and 2-71 series of engine-generator units which power refrigerator cars of all major fleet operators. Series 2-53 is rated at 25 hp at 1,200-rpm operating speed. It is a two-cycle engine with 3⅞-in. bore and 4½-in. stroke. In the 2-71 series there are two engine models, the 2044A with a 20-kw output and the 2044B delivering 15-kw, both at 60 cycles and 80% power factor. These two-cycle engines have two cylinders with 4¼-in. bore and 5-in. stroke.

In addition to developing this equipment, Detroit Diesel also organized a product service school for training maintenance and service personnel. Subjects include diesel engineering theory, basic electricity, wiring, trouble-shooting, operation, maintenance and service.



F-M MODEL 45 ENGINE has new lube oil and fuel oil filters and revised vibration and shock isolation mounting arrangement. At 1,800 rpm it drives 20-kw generator.

FAIRBANKS-MORSE UNIT

Fairbanks-Morse's latest development is an 1,800 rpm, 20-kw diesel generator set, of which 100 are scheduled for application to 100 new Santa Fe mechanical refrigerator cars. This company is studying the possibility of manufacturing more of the equipment it uses. It believes the design trend is toward consideration of under-car engine application.

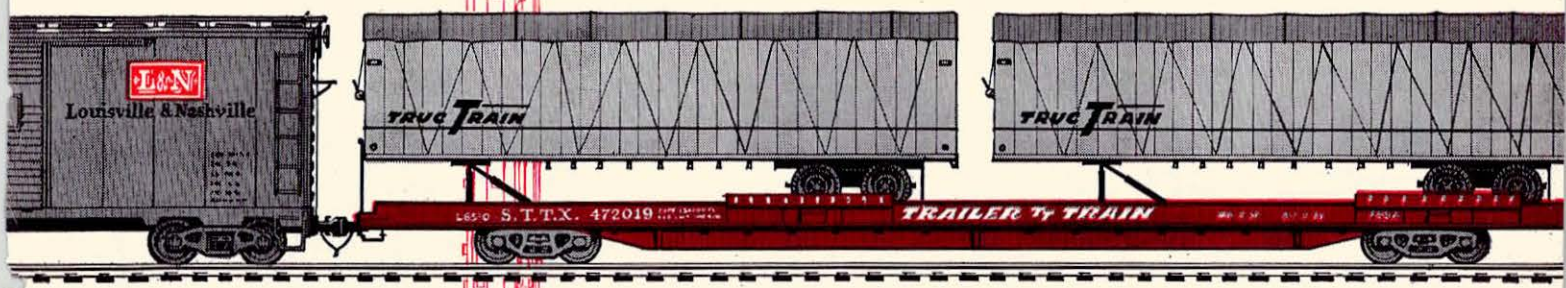
PARTLOW TEMPERATURE CONTROLS

The Partlow Corporation is supplying temperature controls for 1,000 new Pacific Fruit Express mechanical refrigerator cars. The controls (model ZCC), are a new development. They incorporate four control switches and two auxiliary cut-out switches in one mercury-actuated controller.

The four control switches operate in a pre-set sequence. When the dial is set at a point at least 10 deg. lower than car temperature, but above 20 deg. F, switches control five equipment operations: (1) Until car temperature reaches two degrees above set temperature, equipment is

(*Continued on page 16*)

STILL ANOTHER!



TRAILER TT TRAIN

USES PRESSURE-TREATED DECKING

to make "piggy-back" rides cost even less!

Careful handling, competent and efficient movement . . . all have been factors in increasing the "piggy-back" volume handled by the Trailer Train Company.

Among factors contributing to low cost, profitable haulage, is Trailer Train's careful selection of materials which go into the decking on piggy-back cars.

Pressure-treated decking, as supplied by Koppers, was selected for use. Why? Constant exposure to weather is conducive to decay, the major cause of early wood failure. Treated decking, pressure-impregnated with chemical preservatives, is safe from decay attack. It lasts longer. Maintenance costs are drastically reduced, in-service revenue climbs—the reason why Trailer Train *specifies* pressure-treated decking.

The Advantages of Pressure-Treated DECKING

longer service life
higher impact strength
greater wear resistance

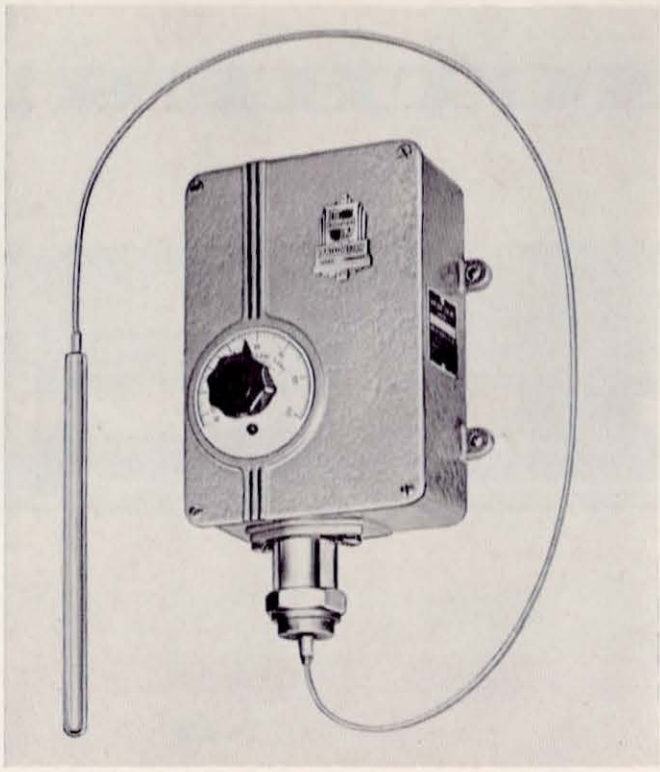
WRITE for this 12-page booklet. It shows in dollars and cents the advantages of Koppers pressure-treated wood for construction and maintenance of rolling stock.

KOPPERS

T-12

KOPPERS
PRESSURE-TREATED WOOD

Wood Preserving Division, Koppers Company, Inc., 761 Koppers Building, Pittsburgh 19, Pa.



PARTLOW MODEL ZCC CONTROLS will regulate temperatures on new PFE cars. These instruments feature a mercury bulb and capillary system that keep temperatures to within 1½ deg of set point.

in high-speed cooling; (2) When proper temperature is reached, refrigeration goes into low-speed cooling (loaded); (3) When set point is reached, equipment produces low-speed cooling (unloaded); (4) If temperature continues to fall to one degree below set point, the compressor is cut off and all cooling equipment is deactivated; (5) If temperature falls to two degrees below set point, the heating cycle is actuated.

The two auxiliary switches permit automatic cut-out of the heating circuits when cars are used for frozen food.

PULSE SYSTEM BATTERY CHARGER

Vapor Heating Corporation has developed a battery charger which uses the pulse system to keep batteries on mechanical refrigerator cars fully charged without overcharging, overheating, or damage.

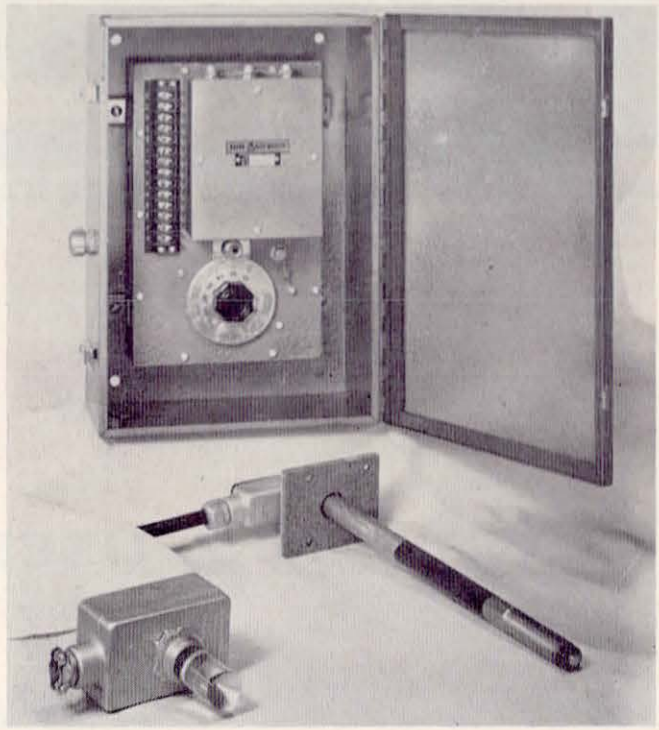
The charger was originally developed for Pacific Fruit Express cars using nickel-cadmium batteries. To date, PFE has ordered 500 of the units. The system can also be applied to other types of equipment.

Vapor claims the pulse system combines the advantages of constant current control charges, and constant voltage control charges, but eliminates their disadvantages. The capacity of the charging system is modulated by cycling the time base. It is accomplished by comparing the battery terminal voltage with a standard voltage. If the voltage drops below the standard by a predetermined amount, the charger is cut in. When the charging current builds the voltage up above a predetermined standard, the charge is cut off.

As the battery voltage floats down, the charger is reconnected. Since the rate at which the voltage builds up is a function of the state of charge, the "on" pulses will be long when the battery is low, becoming progressively shorter and the "off" cycles longer as the charge builds up.

When the battery is fully charged, the "on" pulses will be very short and the "off" pulses comparatively long.

This meets the need of the nickel cadmium battery by providing sufficient "off" time when the battery is fully charged to allow the catalyst to do its work of recombining the electrolyzed gases back into water, thus avoiding loss of water and other problems of overcharging.



VAPOR TEMPERATURE CONTROL includes the All's-Wellite feature, a violet light located on the car end beneath the running board. It is "on" when the selected temperature is being maintained.

VAPOR CONTROLS

Vapor Heating Corporation makes several types of refrigerator car temperature controls to meet mechanical refrigeration needs. One model, of which over a thousand have been supplied for Pacific Fruit Express cars, has four control channels and features an "All's-Wellite." The light, visible from the outside, is always on when temperature is being properly maintained. The control has one heating, one alarm, and two cooling channels. A two-channel control—one channel cooling, one heating—has been supplied to other car builders.

Both controls maintain a selected temperature from —10 to +70 deg by controlling both heating and cooling equipment. The system contains a thermostat probe connected to a temperature control panel with the probe as one leg of a resistance bridge circuit.

At dial settings below 22 deg, heat signals will be locked out and a "frozen-food" lamp will be lit by switches in the temperature control panel. No heating occurs if car temperature drops below these dial settings even though the heating relay does operate. When the dial settings are above 22 deg a "fresh-food" lamp will be lit.

Southern Pacific Company, Tucson, Arizona. Photo courtesy of Tucson Daily Citizen.

1,836 ~~1,400~~ Miles to be controlled by new Union Traffic Control Centers

13

Since the new Union Traffic Control Center was introduced over a year ago, NINE ~~eight~~ railroads have ordered or put into operation ~~12~~ Traffic Control Centers.

These railroads have realized the advantages of Union Switch & Signal's Traffic Control Centers.

With Union Traffic Control Centers, railroads can consolidate the control of CTC in strategic locations and ultimately control an entire railroad from one central point.

A TCC unit takes up much less space than a lever type machine. And it's flexible. A 9-foot basic machine can easily be expanded vertically and horizontally to accommodate additional track diagram modular units. TCC can be applied to all types of interlockings, as well as to CTC. TCC can be used with any existing control system.

Contact your nearest Union Switch & Signal office or representative for full details about TCC.

"Pioneers in Push-Button Science"

UNION SWITCH & SIGNAL

DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY

SWISSVALE, PENNSYLVANIA

NEW YORK . . . . PITTSBURGH . . . . CHICAGO . . . . SAN FRANCISCO

FREAS HITS 'UMBRELLA' RATES *(Continued from page 10)*

lines." Then came his characterization of the majority decision as "umbrella ratemaking." As to what course he would take, he had this to say:

"First, we should set forth as fully and clearly as is practical our views as to the guiding principles . . . We should require cancellation of these rates without prejudice to the refiling of any that respondents believe conform to the standards we have set forth . . .

"The guiding principles should in my opinion be as follows: Assuming substantial equality in service and an absence of special circumstances, respondents should be permitted to meet their competitors' rates whenever they can do so at rates that are compensatory. They should not be permitted to go below their competitors' rates unless they show that (1) rates lower than those of competing carriers are above respondents' full costs and that (2) respondents comprise the low-cost form of transportation."

Pennsy's Altoona Works Due for Face-Lifting

Consolidation and modernization of equipment maintenance facilities at the Pennsylvania's Altoona Works, Altoona, Pa., is the object of a study just undertaken by Robert T. Phillips and Associates, engineering consultants.

Transfer of freight-car work to the Samuel Rea shop in nearby Hollidaysburg, Pa., and the end of steam locomotive repairs have meant that large areas and numerous buildings of the Altoona Works are now only partially used or are vacant. "Physical rearrangement may take several years," according to J. L. Parker, newly-appointed works manager (RA, Jan. 11, p. 31). "More property will be made available for industrial development," he explained.

It's planned to consolidate related operations such as diesel maintenance work. A modern, mechanized freight-car air brake shop is being established at Altoona to do the work now done at a number of points on the system. And a study is being made to determine the feasibility of establishing a mechanized wheel shop to perform all freight-car wheel work for the railroad.

Railroading After Hours with Jim Lyne

WAGES IN ALASKA—On the Alaska Railroad (and maybe some places further south) it's better to be a railroader in the ranks than in an official job. In the Congressional Directory of January 16, wages earned by 5 Alaska RR train and engine service employees in 1958 are reported—ranging from $13,377 to $14,658. The latter earnings are greater than those of any officer, excepting only the general manager and assistant general manager ($22,000 and $15,375, respectively). The comptroller and superintendent are listed at $14,100; and the chief engineer and chief mechanical officer at $13,500.

In addition, Alaska Railroad employees get liberal fringe benefits—and the only customary employee "right" they don't enjoy is that of striking.

IMAGINATIVE SELLING—Jim Shores, T&P public and employee relations director (and former traffic man), has sent me some copies of the "Prosperity Tariff" he issued back in the gloomy days of 1931—and referred to here a couple of months ago. The tariff was printed to look like the real thing, and was sub-titled "Perplexed and Disjointed Scrambled Rates."

The purpose was to create a little cheer in a rather cheerless period—and Jim says he was overwhelmed with requests for copies at the time; and they still come in, over 28 years later. Jim was general agent for the T&P in Atlanta in those days, and he got out an interesting and amusing 4-page bi-monthly bulletin called "Tee-Pee Flashes," which he sent around to his carload customers.

A salesman with a creative imagination can always think of something to interest his customers—even in times as lean as the '30's were.

PROF TURNED RAILROADER—John Tilford, Jr.—who forsook a career of more than 20 years' as a college teacher of English to become assistant to president of the L&N—tells his former colleagues in education about his new experiences, in an article in December's Emory University Alumnus.

He has learned, he reports, that a gondola is not necessarily a Venetian taxicab; that a "70-ton hopper" is not some kind of dinosaur. And he's particularly amazed by the ability of his new associates "to get an incredible amount of work done" with "a relaxed efficiency and cheerfulness that is astonishing."

We've got railroad vice presidents turning truck operators, and profs turning railroaders. The interchange is healthy, and it's also no novelty. One of the most distinguished college teachers of transportation—Professor William J. Cunningham (now retired)—was recruited directly from the railroad business (and without, at the time, any academic titles). And he took to his new profession as if he'd been raised in it.

SOME GOOD BOOKS—A new edition of "Economics of Transportation" by Professors Marvin L. Fair and Ernest W. Williams, Jr., appeared recently. This standard textbook has been brought thoroughly up-to-date. Harvard University Press has published Earl Latham's "Politics of Railroad Coordination 1933-36" (actually, a more or less biographical work on the late Joseph Eastman). Our own company has published a British book "Far Wheels—a Railroad Safari" by C. S. Small—a story of travels on out-of-the-way railroads over the world. Hawthorn Books has come out with a handsomely illustrated (including some color) 512-page book in large format, entitled "The Concise Encyclopedia of World Railway Locomotives"—edited by P. Ransome-Wallis, a Briton who really knows and loves his subject.

BORN ON THE RAILS—E. James Strates, who is in the traveling show business (railroad moved) at Orlando, Fla., has told a friend of mine that he enjoys somewhat of a distinction—that of having been born in a private railroad car.

What Are Big RR Questions?

Who Uses Grab Irons?

Every freight car on American railroads is equipped with two grab irons at the bottom of each end of the car, making a total of four grab irons per car.

In my 43 years of railroad experience I have never seen an employee use one of these grab irons to support himself while attempting to couple or uncouple air hose, or to adjust couplers.

I have made inquiries concerning use of this attachment but can find no authority or practical reason for its use.

Would it not be well to investigate the requirement for this accessory with the ICC and the AAR and, unless there is good practical reason for its application, permit railroads to eliminate grab irons when new equipment is purchased?

I am informed that application of a grab iron costs about $5, which would make the installation $20 per car, and on the 1,700,000 freight cars on all railroads in the country would amount to about $34 million saving.—*J. B. Robinson, assistant superintendent, Western Maryland.*

Can Cars Move Faster?

In the January 4 issue you asked for subjects readers might be interested in.

In my way of thinking, the most important railroad question to explore is the prompt movement of cars, loaded or empty. I do not find much in Railway Age on this very important subject except in a general way, such as installation of new modern yards, etc.

This is an old subject that has received a great deal of consideration by railroad management, but I believe the results are still far from the desired effect. In this day, competition is very keen from the different methods of transportation, and railroads are faced with a shortage of equipment. It seems to me that railroads should put forth every effort to move cars promptly, so as to shorten the turnaround time, which may mean some extra shifting or running of extra trains. The railroads' main objective is fast and reliable transportation.

I believe railroads often overlook the importance of moving empty cars that may be badly needed at the other end of the line.

We are making great progress in the piggyback business. I believe an analysis would indicate that piggyback traffic is moving much faster than most types of freight, with the possible exception of live stock and perishables. This is an indication of what can be done with the proper effort. Sometimes cars are unduly delayed through interchange, or held for anticipated loading. I realize that to attain any marked degree of improvement means close cooperation with all concerned, especially in the operating departments and between shippers and railroads.

I am not giving you anything new, but I believe a discussion by some of our top operating management published in the Railway Age would be of interest and help.

My railroad experience is in the operating department of the PRR, 1916-1927, and B&LE to date.—*E. L. Maurer, demurrage agent, Bessemer & Lake Erie.*

A forum for railroaders who want to explore questions of importance to their industry, this column welcomes both questions and answers from readers at all levels of responsibility in the industry and associated fields. We'll pay $10 to any reader submitting a question that forms the basis for a column discussion. Address correspondence to Question and Answer Editor, Railway Age, 30 Church St., New York 7, N. Y.

"What Are Big RR Questions?" we asked on January 4. Here are two replies. What are yours?

Why Are Running Boards Required on Top?

Running boards on covered-top cars are, in my opinion, becoming an unnecessary and obsolete safety appliance in modern railway operations.

For an illustration: At the U. S. Transportation Center (Ft. Eustis, Va.), the current timetable states, under special safety instructions, "Riding on top of cars is prohibited except in case of emergency." Studies have revealed that trainmen nowadays are generally prohibited from walking over cars while trains are moving between terminals. Union Tank Car Co. has petitioned for ICC authority to eliminate side running boards on its new prototype tank car (RA, May 6, 1958, p. 33). It is my understanding this authority has been granted.

[*Division III of the ICC, by order dated July 16, 1959, approved the Union Tank car without running boards. Following an objection filed by labor interests, the whole Commission met and by date of December 7, 1959, denied the objection. Since the petition was denied, Union Tank Car Co. considers the effective date of approval to be July 16. No special restrictions were placed on use of the car.—Editor*]

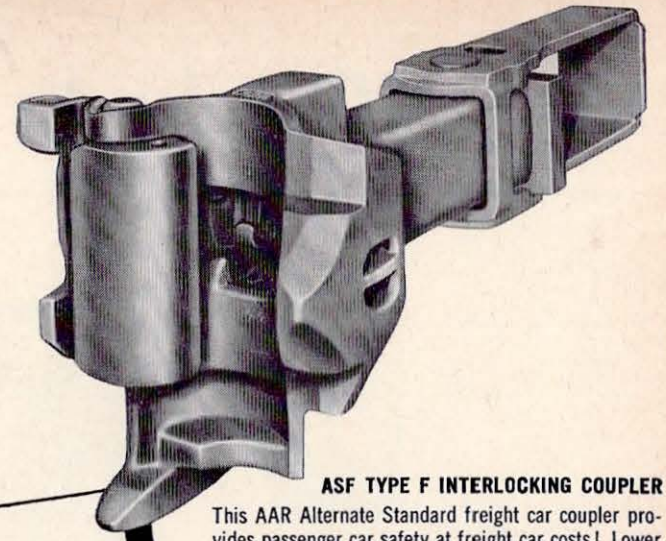
As for switching operations, running boards serve more as a convenient place for trainmen to ride or sit while shoving or pulling a cut of cars. In some yards and terminals trainmen will sometimes be required to go "high" to pass or give signals. But again, in my opinion, these signals can be given just as effectively from the side ladder leading to brake platform.

As for safety, it is generally accepted that the higher a person removes himself from the ground the more the element of hazard is increased. I sometimes think running boards are simply an invitation for a trainman to ride on a car, or even walk from car to car while the train is moving. I can't help but believe that the absence of running boards would tend to reduce personal injuries rather than increase them. [*These comments were sent in by a safety supervisor who prefers to remain anonymous.*]

Today... more than ever...

it's the ASF grip that

counts!

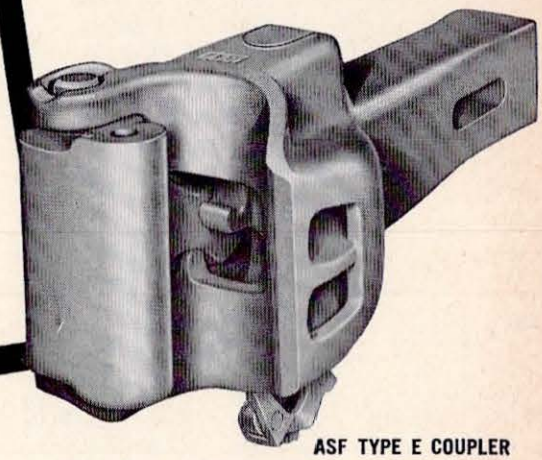


ASF TYPE F INTERLOCKING COUPLER

This AAR Alternate Standard freight car coupler provides passenger car safety at freight car costs! Lower maintenance costs add up to another "plus." Vertical movement between ASF mated F Couplers is virtually nonexistent. This, combined with a more than 50% reduction in free contour slack, means less wear and shock stress . . . longer knuckle and contour life.

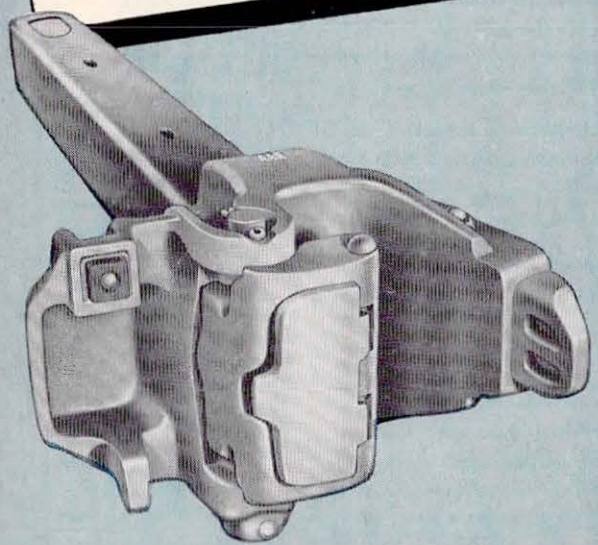
Only ASF makes all 4 AAR-APPROVED coupler designs

ASF Couplers are the safest links that man ever put between railroad cars. Quality construction and the unmatched ASF experience in Research and Development have made them that way. On your cars, make sure that you're getting the finest in long-lasting, trouble-free coupler performance. When you specify ASF, you are.



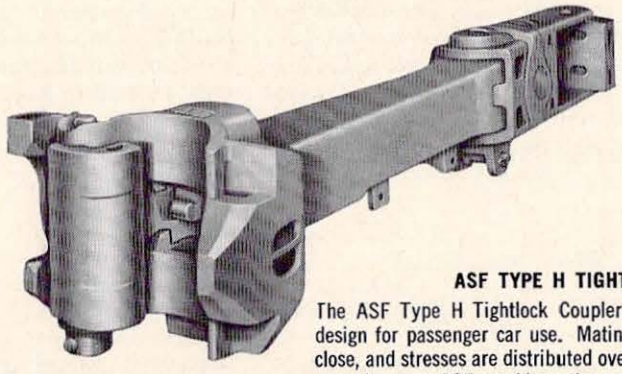
ASF TYPE E COUPLER

This is the unmistakable standard for freight car service . . . now safer than ever, because of steady refinement that has kept pace with heavier drawbar pull. Accidental partings due to simultaneous longitudinal shock and vertical bounce are prevented by means of the Articulated Rotary Locklift. ASF Type E knuckle and lock are made of high-tensile steel to give a yield strength of 300,000 pounds, minimum.



ASF CONTROLLED SLACK COUPLER

Maximum safety and operational smoothness—combined with minimum cost—make this the ideal coupler for new passenger cars. ASF's Controlled Slack Coupler solves the problems of objectionable coupler noise and the shocks of free slack. It interlocks positively, both vertically and horizontally . . . and mates with all AAR Couplers, as well as older MCB Couplers.



ASF TYPE H TIGHTLOCK COUPLER

The ASF Type H Tightlock Coupler is a higher-cost design for passenger car use. Mating is unbelievably close, and stresses are distributed over a larger surface area, because ASF machines the components of this coupler to precision tolerances.

ASF Couplers

GEARED TO PROGRESS
RPI MEMBER

AMERICAN STEEL FOUNDRIES

Prudential Plaza, Chicago 1, Illinois

Canadian Manufacturer and Licensee: International Equipment Co., Ltd., Montreal 1, Quebec
Other Foreign Sales: American Steel Foundries, International, S.A., Chicago

New Products Report

Space-Maker Telephone

The Space-Maker telephone is a compact instrument which features a moveable dial and hook-switch. The dial mounting can be rotated 360 degrees, tilted backward 45 degrees, and locked into place at any point. The handset cradle swings in a 180-degree arc and locks into any one of seven positions. Chromium plated handset hook and coiled cord are standard equipment. Available in black and ten colors. *Automatic Electric Co., Dept. RA, Northlake, Ill.*

Epoxy Aluminum Paint

Epoxy aluminum adheres to metal, plastic or wood. It is said to last four times longer than ordinary aluminum paints. It can be air dried or baked, and is especially resistant to abrasion, impact, corrosion, and severe weather. It is unusually resistant to such solvents and chemicals as caustic and Amines vapors, sulphur dioxide, hydrochloric acid vapors, benzine, alcohol, etc. *Champion Bronze Powder & Paint Co., 2101 N. Elston Ave., Chicago 14.*

Aerial Lift

The Model TAL 7075 Turret Derrick is now available equipped with a three-stage telescoping boom which, it is said, can be extended to a height of 100 ft. Designated the "Super Series," the hydraulically operated lift can be equipped with a two-man fiberglass basket or a 4-ft by 6-ft aluminum platform. The unit is stated to have a capacity of 500 lb when the boom is horizontal and fully extended. It is designed to be mounted in 14 in. of space on a standard truck chassis directly behind the cab, leaving the remainder of the chassis free for use with any type of service body. The boom is mounted on the Truco pedestal and is claimed to rotate through 360 deg. Compactness and low storage height are said to be provided for a "retromatic" hinge base. Optional equipment available includes flanged wheels, 15,000-lb winch which converts the lift into a turret derrick, and a 50-hp Truco turret digger attachment for boring holes up to 30 in. in diameter. *Truck Equipment Company, Dept. RA, 3963 Walnut Street, Denver 5, Colorado.*

Snow Detector

Switch heating equipment can be directly controlled or the dispatcher notified of ice, hail, sleet or falling, drifting or dragged snow, it is claimed, by means of a new snow detector. The unit consists of a sensing head and a control box and is mounted longitudinally in the track. It is operated by 115-v ac, 60-cycle power but can be provided for operation by direct current. *The Rails Company, Dept. RA, Maplewood, N.J.*

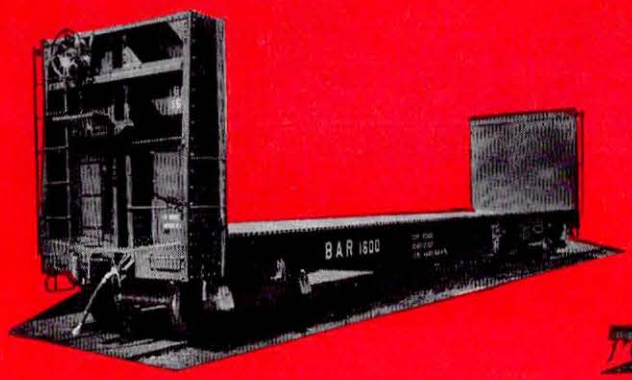
Portable Heater

The B-320 is a compact, thermostat controlled, oil-burning unit that pours out 320,000 BTUs of forced warm air per hour. Under ordinary conditions, the unit will heat 7,000 sq ft of floor space with an 8-ft ceiling. The unit plugs into any regular 115-volt AC outlet and operates on kerosene, No. 1 or 2 fuel oil, running up to 16 continuous hours on one tank of fuel. *Master Vibrator Co., Dept. RA, 364 Stanley Avenue, Dayton 1, Ohio.*

MAGOR CARS

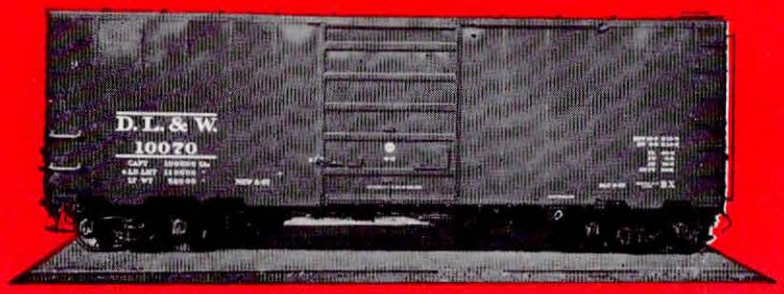
FOR DEPENDABLE SERVICE

70 ton capacity General Purpose Gondola Serving the Florida East Coast Railway



50 ton capacity Pulpwood Car Serving the Bangor and Aroostook Railroad

75 ton capacity Flat Bed Car Serving the Grand Truck Western Railroad



50 ton capacity 40 ft. 6 in. Box Car Serving the Delaware, Lackawanna & Western Railroad

Standard, special or custom made – Magor makes a complete line of freight cars to the most rigid specifications.

The engineering know-how and manufacturing skills of 56 years experience stand behind the Magor promise of dependability!

MAGOR

The Magor Car Corporation welcomes the opportunity of submitting estimates, specifications and recommendations tailored to meet your requirements.
Write today!

MAGOR
CAR CORPORATION

50 CHURCH STREET
NEW YORK, NEW YORK

TWO-THIRDS OF THE TRACTORS, as well as some of the piggyback vans of Reading's highway operation, are leased.

Reading Leases for Flexibility

RUNNING REPAIRS on the spot are handled by an off-track vehicle leased for motive power and equipment crews.

MAINTENANCE OF WAY CREWS ride in the front section of this leased van, back compartment carries equipment.

Like most railroads, the Reading operates a sizable fleet of trucks. To supply the 250-odd vehicles in its highway fleet, it has turned increasingly to a truck leasing system.

All but 23 of the 152 automotive vehicles in Reading service, and 28 of the 56 trucks in the service of subsidiary Reading Transportation Co. are leased, rather than owned outright.

The Reading's fleet of leased vehicles, supplied by Berman Service, Inc., of Pennsburg, Pa., includes a variety of specially built, rubber-tired machines. Among them are a one-ton, 4x4 utility truck with a telescopic crane that is particularly useful for making light car repairs on location, a 4,200-gal. tank truck, and a group of maintenance-of-way personnel carriers that are divided into separate compartments for men and equipment.

Among the advantages to the railroad of leasing, the Reading cites:

- Fleet size can be adapted to needs.
- Pay-as-you-go financing doesn't tie up capital.
- Up-to-date equipment, including whatever special features may be required, is always available.

Particularly important to the Reading Transportation Co., where the need for equipment is determined by the variables of the piggyback and over-the-highway freight traffic sales, the leasing contract covers only the number of trucks needed for normal business conditions. A standby fleet is available from the leasing firm to handle peak loads when the need arises. When not needed, the peak units go back to the leaser's pool.

Letters from Readers

Concrete Ties in France

Paris, France

To the Editor:

In your issue of Nov. 9, 1959, p. 20, you published an article on the interest in concrete ties and pointed out that the Atlantic Coast Line and Seaboard Air Line expect to install a test section of one-quarter mile.

You cite, among the factors which have revived interest in concrete ties, the wide application of them in Germany and the recent development of pre-stressed concrete in America. The article seems to imply that a concrete tie, in order to fill the bill, will have to be of pre-stressed concrete—meeting somewhat the specifications adopted by the German Railroads. French experience, which embraces 4½ million concrete ties in actual service, shows that this is not necessary; that it is possible to produce reinforced concrete ties which—less costly and of easier manufacture than those of pre-stressed concrete—stand up perfectly in service.

We are not unaware of the qualities of pre-stressed concrete, when well designed and carefully produced. The French Railways have used such ties for a dozen years—which have given full satisfaction from a technical standpoint. But we have also, at the same time, developed still further the use of "mixed" ties (blocks of reinforced concrete, held together by a metallic tie-bar), which have given at least equivalent satisfaction.

With this type, pre-stressing is not necessary to prevent cracks developing in the lower part (as examination of ties 30 years in service shows), nor to resist, in the middle of the tie, a moment of negative flexion.

We manufacture each year about 500,000 "mixed" ties. This figure would be considerably increased if the situation of the wood market in France did not oblige us to absorb, in the form of ties, a substantial part of national production of wood.

Robert Levi
Director, Fixed Installations
French National Railways

'Soft Selling'

St. Louis, Mo.

To the Editor:

I read your article entitled "Why RRs Need 'Soft Selling' " (Jan. 4, p. 25) with more than usual interest. The article hits at the very heart of outdated philosophies which exist in the selling of railroad transportation. Its context is objective and must be taken to heart by any railroad sales department that hopes to do a significant job for its road.

In my opinion, there is nothing hopeless in the future for the railroads if they will only heed and put into practice the tenets as set out in your very perceptive article.

Keep up the good work.

Frank J. Heiling
Vice President-Sales and Service
Missouri-Kansas-Texas

Raleigh, N. C.

To the Editor:

I have read with great interest your January 4 article on "Why RRs Need Soft Selling".

You are to be congratulated on bringing this most timely message to the attention of the industry. Certainly every railroad traffic salesman must be something of a market researcher. You have made an excellent presentation in emphasizing that important phase of selling railroad transportation.

Emmett H. Durham
General Agent, ACL

Longest Piggyback Car

Baltimore, Md.

To the Editor:

Have noted with interest the article appearing on p. 59 of the Dec. 21/28 issue of Railway Age, describing the new ATSF articulated flat cars in piggyback operations. This article states that the total length is 92-ft 5½-in., which represents the longest piggyback car in service. Apparently you have overlooked the article appearing on p. 40 of the Sept. 7 issue of Railway Age in regard to tandem type flat cars operating in our TOFCEE service, which are 107-ft in length, for the two decks, and 113-ft 6-in. over the end couplers.

F. H. Einwaechter
Chief Engineer Motive Power & Equipment
Baltimore & Ohio

(Our Dec. 21/28 issue should have said of the Santa Fe cars, "the longest yet for *western* piggyback service." We regret the error.—Editor)

'Sell the People'

Gainsville, Fla.

To the Editor:

The article entitled "Tell the People" in the Dec. 14 Railway Age makes good sense, but I believe that an even more important problem is how to "Sell the People."

The average layman does not understand how he can benefit from improvements in railroad operations. Perhaps legislative climates could be improved if the industry would "Buy the People." For example: The railroads of State "A" want to abolish a full crew law requiring a third brakeman on freight trains. It is anticipated that annual savings of one million dollars will result from this action. The carriers in turn promise to spend four million dollars over the next four years to improve or eliminate grade crossings within the state. The proposed improvements are described in detail in the local newspapers.

Here is an honest deal in which John Q. Public can see that he is receiving something tangible in return for his support of the railroads. Who could resist such a bargain?

James D. Quigg, Jr.
Instructor, Dept. of Engineering
University of Florida

(Mr. Quigg may have a point—in appealing to public self-interest in railroad legislative proposals—but grade crossing elimination, we believe, is not a happy suggestion, since grade crossing elimination is not properly a primary responsibility of the railroads.—Editor)

Computers

Columbus, Ohio

To the Editor:

Referring to Dec. 7, 1959, Railway Age, we are very interested in the electronic computer articles.

We have been very much involved, particularly with International Business Machines, in working out acceptable raised platforms. The IBM people have now standardized on the use of our Doweloc Glue-Lam panels although they are, of course, still experimenting with anything that comes along. We take particular note of page 19 where you listed both the data processing equipment and the auxiliary EDP equipment manufacturers. We find that our name is not among the auxiliary EDP equipment and wonder why. Incidentally, IBM has one installation of our product of 80,000 sq ft area which, to our knowledge is the largest installation of raised platform for data processing in the world . . .

J. W. Webster
Vice President
Doweloc Division
D. B. Frampton & Company

(The names included in our article were assembled from a number of sources, including many railroads. The electronics industry is so complex and fast-growing that we realized our lists might not be 100% accurate. Any ommissions, though, were strictly unintentional.—Editor)

Edward A. Ryder
CNR

George R. Johnston
CNR

H. Brad Atwood
SP

Donald Jensen
ACF

People in the News

BURLINGTON.—**P. E. Poindexter,** assistant district master mechanic of the locomotive and car department, Chicago, Aurora and La-Crosse divisions, appointed master mechanic, Lincoln, Omaha and Wymore divisions, Lincoln, Neb., to succeed **C. E. Bloom,** retired.

CANADIAN NATIONAL.—**Edward A. Ryder,** general freight traffic manager, appointed deputy vice president of traffic, Montreal. **George R. Johnston,** general manager merchandise services, appointed general freight traffic manager.

W. Lorne Shirray, assistant to vice president, purchases and stores, Montreal, appointed general fuel agent.

P. F. Padberg, general storekeeper, Atlantic region, Moncton, N.B., transferred to the Western region at Winnipeg, Man. **Adam Lang,** commodities and price analyst, Montreal, succeeds Mr. Padberg at Moncton.

CHESAPEAKE & OHIO.—**R. V. Wade,** passenger trainmaster—system, Huntington, W.Va., appointed assistant superintendent passenger service there and his former position abolished. **W. E. Bowles,** assistant superintendent transportation, Huntington, retired and that position abolished. **A. S. Tatum** named general agent, Richmond, Va., succeeding **J. R. Thompson,** retired.

Arthur J. Sowatsky, assistant regional general storekeeper, Grand Rapids, Mich., retired Jan. 31.

CHICAGO & EASTERN ILLINOIS.—**J. Cibulka** appointed assistant freight traffic manager; **L. H. Johnson,** general freight agent—grain and grain products; **W. A. Doncer,** assistant general freight agent, all at Chicago.

FORT WORTH & DENVER.—**R. A. Craig,** assistant general freight and passenger agent, Dallas, Tex., retires March 1.

FRISCO.—**A. E. Kerr,** chief special agent, St. Louis, appointed manager special services there. **G. W. Dulaney,** assistant chief special agent, named to succeed Mr. Kerr, with headquarters at Springfield, Mo. **E. P. Olson** named assistant to vice president and general manager, Springfield.

Enos Gaines, Jr. appointed terminal trainmaster, St. Louis.

LONG ISLAND.—**Anthony Schettone, Jr.,** general locomotive foreman, appointed diesel supervisor and is succeeded by **Charles P. Soffel,** chief diesel inspector.

LOUISVILLE & NASHVILLE.—**Warren A. McNeill** appointed director of the newly established public relations department at Louisville, Ky. He was formerly administrative assistant to Senator A. Willis Robertson of Virginia.

MISSISSIPPI CENTRAL.—**F. E. Montgomery,** acting general manager and auditor, Hattiesburg, Miss., appointed general manager and auditor.

MONON.—**Donald L. Campbell** appointed freight traffic agent, Chicago.

OREGON & NORTHWESTERN.—**Henry C. Geer,** operating superintendent, Hines, Ore., retired. **L. D. Crump,** general freight agent, promoted to superintendent. **R. K. Barrett,** dispatcher, appointed also general freight agent.

RAILWAY ASSOCIATION OF CANADA.—**G. A. Richardson,** chief of the transportation and public utilities section, Dominion Bureau of Statistics, Ottawa, Ont., appointed general secretary of the Railway Association of Canada.

ROCK ISLAND.—**R. J. Lane** appointed assistant to vice president-operations, Chicago, to succeed **C. J. Driscoll,** retired.

Dr. N. A. Kilgore appointed chief medical officer, Joint Texas Division, Houston, succeeding **Dr. A. Philo Howard,** who retired Jan. 31.

SOUTHERN.—**Samuel R. Goodman,** freight traffic manager, Washington, D.C., promoted to general freight traffic manager there. **Armpstred C. Henderson,** assistant freight traffic manager, Atlanta, Ga., succeeds Mr. Goodman as freight traffic manager, Washington. **Frank S. McCoy,** general freight agent, Atlanta, promoted to assistant freight traffic manager—divisions, succeeding **Richard W. Ellerman,** who replaces Mr. Henderson. **Mehrl K. Martin,** assistant to freight traffic manager, succeeds Mr. McCoy.

Harold D. Little, commercial agent, promoted to district freight agent, Charlotte, N.C., succeeding **J. Aubrey McLain,** retired.

SOUTHERN PACIFIC.—**H. Brad Atwood** has been promoted to the newly created position of public relations manager at Los Angeles. Mr. Atwood was formerly assistant public relations manager there.

J. R. Michener named assistant manager of personnel, San Francisco.

TEXAS & NEW ORLEANS.—**Vernon Eaves,** assistant secretary and auditor, elected general auditor. Position of auditor abolished. **J. L. Stone,** secretary and assistant general auditor, retired Jan. 31. **H. D. Gray,** assistant treasurer, appointed secretary and **H. T. Sterett** named assistant secretary. **M. O. Jones** named assistant to general auditor, replacing **J. V. Watson,** appointed assistant general auditor.

M. N. Cowan, assistant to traffic manager, retired Jan. 31.

TEXAS & PACIFIC.—Titles of freight and passenger traffic representatives have been changed to the following:

At Dallas, **Chester G. Hayes** becomes vice president-marketing, **C. Herman Pistor,** assistant vice president-marketing, **Louis P. Vinet,** supervisor-freight sales, **F. Ralf LaCroix,** assistant to vice president-marketing, **Mark L. Craig,** manager-piggyback sales, **Walter G. Harris,** general manager-passenger sales, **Charles A. Roberts,** assistant general manager-passenger sales, **William B. Battle,** manager-passenger sales.

At New Orleans, **John P. Donovan,** manager of foreign freight sales, **F. L. Werner,** assistant manager-passenger sales.

At Los Angeles, **A. N. Overall,** western general sales manager, **J. E. Large,** assistant western general sales manager, **H. S. Birchenall,** sales manager-perishable traffic.

At Birmingham, Ala., **Larry W. Moon,** southeastern general sales manager.

At New York, **Cooper Hunt,** eastern general sales manager, **A. W. Keating,** eastern district manager-freight sales, **V. J. Sikora,** assistant sales manager-perishable traffic.

At Chicago, **Howard A. Lowry,** central general sales manager.

At San Francisco, **J. H. Dressen,** assistant western general sales manager.

Title of general freight agent changed to regional manager-freight sales; general agent to district manager-freight sales; merchandise traffic manager to merchandise sales manager; general merchandise traffic agent to assistant merchandise sales manager; freight traffic manager to general manager-freight rates; general freight agent to manager-freight rates; assistant general freight agent to assistant manager-freight rates; assistant general passenger agent to assistant manager-passenger sales; district passenger agent to district passenger sales representative.

Victor B. Gilman, freight traffic manager, Dallas, retired Feb. 1.

OBITUARY

P. C. Mukerjee, who retired last June as chairman of the **Indian Railway Board,** died Jan. 10 in Calcutta.

Thomas J. Anderson, 57, assistant general manager, **Santa Fe,** Amarillo, Tex., died Feb. 13 near Abernathy, Tex.

Fred E. Andrick, 52, general car foreman, Santa Fe, Amarillo, Tex., died Feb. 13 at Lubbock, Tex.

L. C. Atchison, assistant director of research, **Denver & Rio Grande Western,** died Feb. 6 in an automobile accident near Wildhorse, Colo.

James C. Ryan, 68, retired superintendent of the dining car department, **Chicago & North Western,** died Feb. 12 in Resurrection Hospital, Chicago.

Leslie H. Tyler, 64, recently named vice president—public relations, **New Haven** (RA, Feb. 8, p. 13), died Feb. 15 at his home in Woodbridge, Conn.

Marquis L. Bishop, 61, purchasing agent, **Pittsburgh & West Virginia,** Pittsburgh, Pa., died recently.

Letters from Readers

Concrete Ties in France

Paris, France

To the Editor:

In your issue of Nov. 9, 1959, p. 20, you published an article on the interest in concrete ties and pointed out that the Atlantic Coast Line and Seaboard Air Line expect to install a test section of one-quarter mile.

You cite, among the factors which have revived interest in concrete ties, the wide application of them in Germany and the recent development of pre-stressed concrete in America. The article seems to imply that a concrete tie, in order to fill the bill, will have to be of pre-stressed concrete—meeting somewhat the specifications adopted by the German Railroads. French experience, which embraces 4½ million concrete ties in actual service, shows that this is not necessary; that it is possible to produce reinforced concrete ties which—less costly and of easier manufacture than those of pre-stressed concrete—stand up perfectly in service.

We are not unaware of the qualities of pre-stressed concrete, when well designed and carefully produced. The French Railways have used such ties for a dozen years—which have given full satisfaction from a technical standpoint. But we have also, at the same time, developed still further the use of "mixed" ties (blocks of reinforced concrete, held together by a metallic tie-bar), which have given at least equivalent satisfaction.

With this type, pre-stressing is not necessary to prevent cracks developing in the lower part (as examination of ties 30 years in service shows), nor to resist, in the middle of the tie, a moment of negative flexion.

We manufacture each year about 500,000 "mixed" ties. This figure would be considerably increased if the situation of the wood market in France did not oblige us to absorb, in the form of ties, a substantial part of national production of wood.

Robert Levi
Director, Fixed Installations
French National Railways

'Soft Selling'

St. Louis, Mo.

To the Editor:

I read your article entitled "Why RRs Need 'Soft Selling' " (Jan. 4, p. 25) with more than usual interest. The article hits at the very heart of outdated philosophies which exist in the selling of railroad transportation. Its context is objective and must be taken to heart by any railroad sales department that hopes to do a significant job for its road.

In my opinion, there is nothing hopeless in the future for the railroads if they will only heed and put into practice the tenets as set out in your very perceptive article.

Keep up the good work.

Frank J. Heiling
Vice President-Sales and Service
Missouri-Kansas-Texas

Raleigh, N. C.

To the Editor:

I have read with great interest your January 4 article on "Why RRs Need Soft Selling".

You are to be congratulated on bringing this most timely message to the attention of the industry. Certainly every railroad traffic salesman must be something of a market researcher. You have made an excellent presentation in emphasizing that important phase of selli. g railroad transportation.

Emmett H. Durham
General Agent, ACL

Longest Piggyback Car

Baltimore, Md.

To the Editor:

Have noted with interest the article appearing on p. 59 of the Dec. 21/28 issue of Railway Age, describing the new ATSF articulated flat cars in piggyback operations. This article states that the total length is 92-ft 5½-in., which represents the longest piggyback car in service. Apparently you have overlooked the article appearing on p. 40 of the Sept. 7 issue of Railway Age in regard to tandem type flat cars operating in our TOFCEE service, which are 107-ft in length, for the two decks, and 113-ft 6-in. over the end couplers.

F. H. Einwaechter
Chief Engineer Motive Power & Equipment
Baltimore & Ohio

(Our Dec. 21/28 issue should have said of the Santa Fe cars, "the longest yet for *western* piggyback service." We regret the error.—Editor)

'Sell the People'

Gainsville, Fla.

To the Editor:

The article entitled "Tell the People" in the Dec. 14 Railway Age makes good sense, but I believe that an even more important problem is how to "Sell the People."

The average layman does not understand how he can benefit from improvements in railroad operations. Perhaps legislative climates could be improved if the industry would "Buy the People." For example: The railroads of State "A" want to abolish a full crew law requiring a third brakeman on freight trains. It is anticipated that annual savings of one million dollars will result from this action. The carriers in turn promise to spend four million dollars over the next four years to improve or eliminate grade crossings within the state. The proposed improvements are described in detail in the local newspapers.

Here is an honest deal in which John Q. Public can see that he is receiving something tangible in return for his support of the railroads. Who could resist such a bargain?

James D. Quigg, Jr.
Instructor, Dept. of Engineering
University of Florida

(Mr. Quigg may have a point—in appealing to public self-interest in railroad legislative proposals—but grade crossing elimination, we believe, is not a happy suggestion, since grade crossing elimination is not properly a primary responsibility of the railroads.—Editor)

Computers

Columbus, Ohio

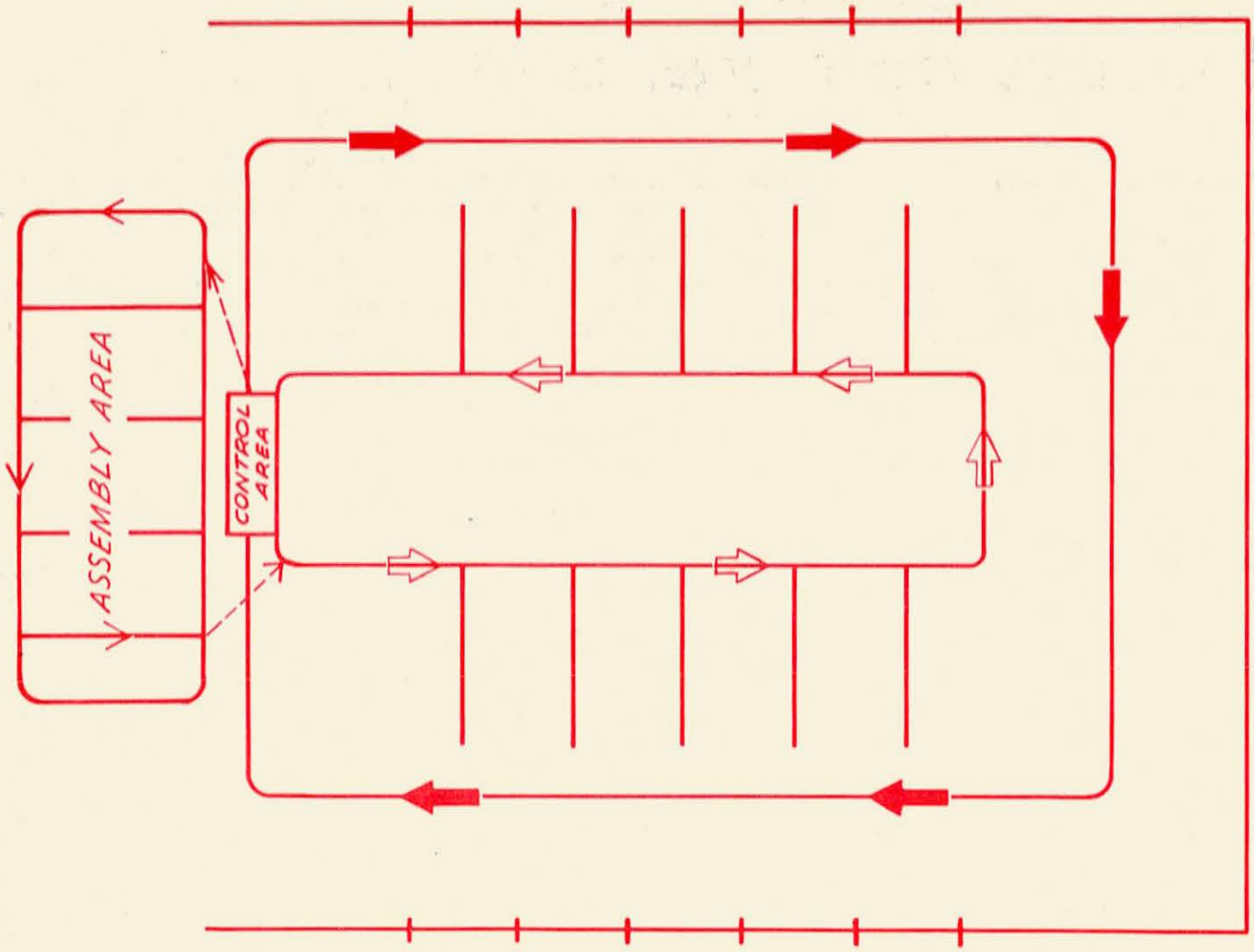
To the Editor:

Referring to Dec. 7, 1959, Railway Age, we are very interested in the electronic computer articles.

We have been very much involved, particularly with International Business Machines, in working out acceptable raised platforms. The IBM people have now standardized on the use of our Doweloc Glue-Lam panels although they are, of course, still experimenting with anything that comes along. We take particular note of page 19 where you listed both the data processing equipment and the auxiliary EDP equipment manufacturers. We find that our name is not among the auxiliary EDP equipment and wonder why. Incidentally, IBM has one installation of our product of 80,000 sq ft area which, to our knowledge is the largest installation of raised platform for data processing in the world . . .

J. W. Webster
Vice President
Doweloc Division
D. B. Frampton & Company

(The names included in our article were assembled from a number of sources, including many railroads. The electronics industry is so complex and fast-growing that we realized our lists might not be 100% accurate. Any ommissions, though, were strictly unintentional.—Editor)



FLOW OF FREIGHT in Spector Freight System's new Brooklyn terminal is shown in this schematic diagram. Solid arrows indicate how switch carts loaded with incoming freight move along outer mechanical shunt line from doors to control center. Outline arrows indicate how carts loaded with outbound freight move from control or assembly areas along powered inner shunt line to gravity spurs serving doorways. Diagram does not show all lines, and is not drawn to precise scale. The terminal is the first to be built by Spector under a $20-million modernization program.

Truck Terminal Thinks for Itself

A new $1.5-million truck freight terminal that almost literally "thinks for itself" has just been opened by Spector Freight System, Inc., in Brooklyn, N.Y.

The first of 15 such terminals to be built by Spector under a $20-million modernization program, it includes "a series of basic innovations in freight handling techniques and facilities" which would appear to be equally applicable to many railroad freighthouses.

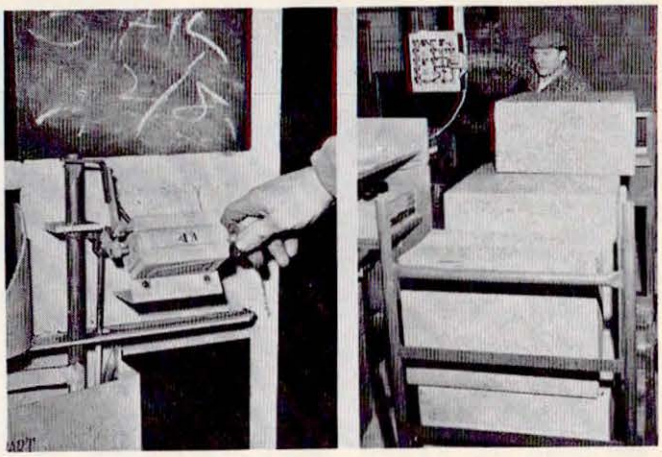
Heart of the new terminal is a double under-floor shunt line which carries 450 switch carts between 32 freight doors, an automatic scale, and control and storage areas. About 1,500 ft of the line are powered, with a speed of 100 fpm; 3,500 ft are operated by gravity, or are level for storage purposes.

Freight from incoming highway trucks is unloaded onto the switch carts —one shipment per cart—and automatically conveyed along the powered outer shunt line to the control center, where it is checked for number of pieces, weight and destination. The control clerk then dials the appropriate outgoing door number on a countdown device located waist-high on the front of each cart. This patented counter is used for the first time in the terminal.

If the designated door is ready to receive outbound shipments, the clerk immediately engages the cart in the mechanical inner shunt line. As the cart moves along this line a pin connected to the countdown device contacts a small ridge or bump built into the terminal floor adjacent to the line opposite each freight door. Each ridge thus contacted counts down one number.

If, for example, Door 10 has been dialed, the counter clicks down once as it passes each of the first nine doors; reaches zero at Door 10. At that point, the counter automatically raises one pin to disengage the cart from the powered line; drops a second pin which connects it to an unpowered track leading to one of three short perpendicular spur lines serving each door. The cart rolls down this line, by gravity, stopping either at the end or on contact with carts already on the line.

1 **INCOMING FREIGHT,** loaded one shipment to a cart, is routed first to the control center. There it is double-checked for weight and number of pieces; then rerouted to proper door for outbound loading or to assembly area where it can be held until outgoing highway truck is ready to receive it. Each cart has been painted in one of five colors and numbered for easier identification.



2 **IN CONTROL CENTER,** clerk (left) sets countdown device or (right) uses electric "memory" board to direct cart onto proper track in assembly area. Counter, actuated by small ridges built into terminal floor adjacent to powered inner shunt line, takes carts off that line when they reach designated loading door.

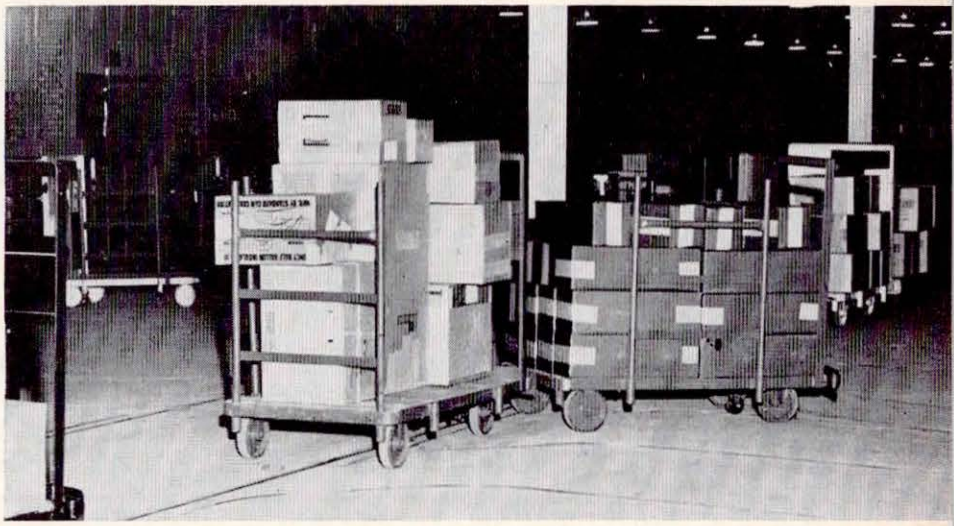
Carts are routed to the three gravity lines in sequence by steel floor plates activated by passing carts on much the same principle as a railroad spring switch. Each line holds six carts—a total of 18 per door.

If an outgoing shipment cannot be loaded as soon as it clears the control center, it is routed by another section of the shunt line to an assembly area, where an electric memory device guides it to one of 19 12-cart tracks. These slope gently toward, and are connected to, the inner shunt line, but a pin placed in the floor keeps carts from entering the line.

When the proper outbound trailer is ready for loading, the pin is pulled, the carts roll into the line, and are towed to the proper door in the same way as carts coming directly from the control area.

The carts—manufactured by SI Handling Systems, Easton, Pa.—are each painted in one of five colors. Those in each color are numbered in sequence for easier identification. Each cart has a spring-loaded front bumper to prevent damaging impacts when moving by gravity on unpowered shunt lines. On powered lines, of course, they are automatically spaced about 12 ft apart. The shunt lines were furnished by Jervis B. Webb Co., Detroit.

The terminal itself, on 8½ paved acres, includes a 3,300-sq-ft garage, 10,000 sq ft of office space, and a freight dock 351 ft by 97 ft. This includes some space—and 20 additional doors—for conventional lift-truck handling of special freight which cannot be accommodated on the switch carts.



3 **OUTBOUND FREIGHT,** also loaded one shipment to a cart, moves from control or assembly areas along powered inner shunt line at 100 fpm; peels off by countdown action at proper door; is bumped down unpowered perpendicular spur lines by following cart. Spring-loaded bumpers prevent chance of damaging impacts.

4 **EACH OUTGOING DOOR** is served by three six-cart gravity spurs at right angles to main inner shunt line. Powered outer line which takes incoming freight to control area runs between carts shown here and freight doors. Note spotlights directed at each doorway to facilitate freight handling.

Edward A. Ryder
CNR

George R. Johnston
CNR

H. Brad Atwood
SP

Donald Jensen
ACF

People in the News

BURLINGTON.—**P. E. Poindexter,** assistant district master mechanic of the locomotive and car department, Chicago, Aurora and La-Crosse divisions, appointed master mechanic, Lincoln, Omaha and Wymore divisions, Lincoln, Neb., to succeed **C. E. Bloom,** retired.

CANADIAN NATIONAL.—**Edward A. Ryder,** general freight traffic manager, appointed deputy vice president of traffic, Montreal. **George R. Johnston,** general manager merchandise services, appointed general freight traffic manager.

W. Lorne Shirray, assistant to vice president, purchases and stores, Montreal, appointed general fuel agent.

P. F. Padberg, general storekeeper, Atlantic region, Moncton, N.B., transferred to the Western region at Winnipeg, Man. **Adam Lang,** commodities and price analyst, Montreal, succeeds Mr. Padberg at Moncton.

CHESAPEAKE & OHIO.—**R. V. Wade,** passenger trainmaster—system, Huntington, W.Va., appointed assistant superintendent passenger service there and his former position abolished. **W. E. Bowles,** assistant superintendent transportation, Huntington, retired and that position abolished. **A. S. Tatum** named general agent, Richmond, Va., succeeding **J. R. Thompson,** retired.

Arthur J. Sowatsky, assistant regional general storekeeper, Grand Rapids, Mich., retired Jan. 31.

CHICAGO & EASTERN ILLINOIS.—**J. Cibulka** appointed assistant freight traffic manager; **L. H. Johnson,** general freight agent—grain and grain products; **W. A. Doncer,** assistant general freight agent, all at Chicago.

FORT WORTH & DENVER.—**R. A. Craig,** assistant general freight and passenger agent, Dallas, Tex., retires March 1.

FRISCO.—**A. E. Kerr,** chief special agent, St. Louis, appointed manager special services there. **G. W. Dulaney,** assistant chief special agent, named to succeed Mr. Kerr, with headquarters at Springfield, Mo. **E. P. Olson** named assistant to vice president and general manager, Springfield.

Enos Gaines, Jr. appointed terminal trainmaster, St. Louis.

LONG ISLAND.—**Anthony Schettone, Jr.,** general locomotive foreman, appointed diesel supervisor and is succeeded by **Charles P. Soffel,** chief diesel inspector.

LOUISVILLE & NASHVILLE.—**Warren A. McNeill** appointed director of the newly established public relations department at Louisville, Ky. He was formerly administrative assistant to Senator A. Willis Robertson of Virginia.

MISSISSIPPI CENTRAL.—**F. E. Montgomery,** acting general manager and auditor, Hattiesburg, Miss., appointed general manager and auditor.

MONON.—**Donald L. Campbell** appointed freight traffic agent, Chicago.

OREGON & NORTHWESTERN.—**Henry C. Geer,** operating superintendent, Hines, Ore., retired. **L. D. Crump,** general freight agent, promoted to superintendent. **R. K. Barrett,** dispatcher, appointed also general freight agent.

RAILWAY ASSOCIATION OF CANADA.—**G. A. Richardson,** chief of the transportation and public utilities section, Dominion Bureau of Statistics, Ottawa, Ont., appointed general secretary of the Railway Association of Canada.

ROCK ISLAND.—**R. J. Lane** appointed assistant to vice president-operations, Chicago, to succeed **C. J. Driscoll,** retired.

Dr. N. A. Kilgore appointed chief medical officer, Joint Texas Division, Houston, succeeding **Dr. A. Philo Howard,** who retired Jan. 31.

SOUTHERN.—**Samuel R. Goodman,** freight traffic manager, Washington, D.C., promoted to general freight traffic manager there. **Armpstred C. Henderson,** assistant freight traffic manager, Atlanta, Ga., succeeds Mr. Goodman as freight traffic manager, Washington. **Frank S. McCoy,** general freight agent, Atlanta, promoted to assistant freight traffic manager—divisions, succeeding **Richard W. Ellerman,** who replaces Mr. Henderson. **Mehrl K. Martin,** assistant to freight traffic manager, succeeds Mr. McCoy.

Harold D. Little, commercial agent, promoted to district freight agent, Charlotte, N.C., succeeding **J. Aubrey McLain,** retired.

SOUTHERN PACIFIC.—**H. Brad Atwood** has been promoted to the newly created position of public relations manager at Los Angeles. Mr. Atwood was formerly assistant public relations manager there.

J. R. Michener named assistant manager of personnel, San Francisco.

TEXAS & NEW ORLEANS.—**Vernon Eaves,** assistant secretary and auditor, elected general auditor. Position of auditor abolished. **J. L. Stone,** secretary and assistant general auditor, retired Jan. 31. **H. D. Gray,** assistant treasurer, appointed secretary and **H. T. Sterett** named assistant secretary. **M. O. Jones** named assistant to general auditor, replacing **J. V. Watson,** appointed assistant general auditor.

M. N. Cowan, assistant to traffic manager, retired Jan. 31.

TEXAS & PACIFIC.—Titles of freight and passenger traffic representatives have been changed to the following:

At Dallas, **Chester G. Hayes** becomes vice president-marketing, **C. Herman Pistor,** assistant vice president-marketing, **Louis P. Vinet,** supervisor-freight sales, **F. Ralf LaCroix,** assistant to vice president-marketing, **Mark L. Craig,** manager-piggyback sales, **Walter G. Harris,** general manager-passenger sales, **Charles A. Roberts,** assistant general manager-passenger sales, **William B. Battle,** manager-passenger sales.

At New Orleans, **John P. Donovan,** manager of foreign freight sales, **F. L. Werner,** assistant manager-passenger sales.

At Los Angeles, **A. N. Overall,** western general sales manager, **J. E. Large,** assistant western general sales manager, **H. S. Birchenall,** sales manager-perishable traffic.

At Birmingham, Ala., **Larry W. Moon,** southeastern general sales manager.

At New York, **Cooper Hunt,** eastern general sales manager, **A. W. Keating,** eastern district manager-freight sales, **V. J. Sikora,** assistant sales manager-perishable traffic.

At Chicago, **Howard A. Lowry,** central general sales manager.

At San Francisco, **J. H. Dressen,** assistant western general sales manager.

Title of general freight agent changed to regional manager-freight sales; general agent to district manager-freight sales; merchandise traffic manager to merchandise sales manager; general merchandise traffic agent to assistant merchandise sales manager; freight traffic manager to general manager-freight rates; general freight agent to manager-freight rates; assistant general freight agent to assistant manager-freight rates; assistant general passenger agent to assistant manager-passenger sales; district passenger agent to district passenger sales representative.

Victor B. Gilman, freight traffic manager, Dallas, retired Feb. 1.

OBITUARY

P. C. Mukerjee, who retired last June as chairman of the **Indian Railway Board,** died Jan. 10 in Calcutta.

Thomas J. Anderson, 57, assistant general manager, **Santa Fe,** Amarillo, Tex., died Feb. 13 near Abernathy, Tex.

Fred E. Andrick, 52, general car foreman, Santa Fe, Amarillo, Tex., died Feb. 13 at Lubbock, Tex.

L. C. Atchison, assistant director of research, **Denver & Rio Grande Western,** died Feb. 6 in an automobile accident near Wildhorse, Colo.

James C. Ryan, 68, retired superintendent of the dining car department, **Chicago & North Western,** died Feb. 12 in Resurrection Hospital, Chicago.

Leslie H. Tyler, 64, recently named vice president—public relations, **New Haven** (RA, Feb. 8, p. 13), died Feb. 15 at his home in Woodbridge, Conn.

Marquis L. Bishop, 61, purchasing agent, **Pittsburgh & West Virginia,** Pittsburgh, Pa., died recently.

Supply Trade

Donald Jensen has been appointed advertising and public relations manager of **ACF Industries, Inc.**

Robert H. Hill has been appointed director of sales for the **Sherwin-Williams Co.** at Cleveland, Ohio. Mr. Hill was formerly general manager of transportation, industrial maintenance and painter-maintenance sales.

Edwin Lex Bacon, manager, advertising and sales promotion department of the **Graybar Electric Co.,** at New York, has been appointed general advertising and sales promotion manager. **Raymond C. Babcock,** assistant advertising and sales promotion manager, has been named advertising manager. **Ralph Sackett, Jr.,** has been appointed sales promotion manager.

John P. DeHetre, assistant sales manager, has been appointed general manager of sales of the **Youngstown Sheet & Tube Co.,** succeeding **John M. Tuthill,** retired. **George D. Wick III,** resident salesman, Atlanta district, Charlotte, N.C., has been appointed assistant manager of standard pipe sales at Youngstown, Ohio.

William E. Farragher, Jr., assistant advertising manager, has been promoted to advertising manager, Youngstown.

James Treece has been promoted to manager of the Railway Sales division of **Binks Manufacturing Co.,** 3114 Carroll Avenue, Chicago 12, manufacturer of spray finishing equipment. Mr. Treece succeeds **George Green,** retired.

Harold M. Nelson, chief mechanical officer, **North American Car Corp.,** has been elected vice president and chief mechanical officer. **E. M. Cardwell,** manager of the tariff and mileage department, has been promoted to traffic manager. **Edward J. Snyder, Jr.** has been named assistant to the president. Mr. Snyder was formerly an account executive with **Selvage & Lee, Inc.**

H. Grady Rogers, Jr., has been appointed a field service engineer for **A. M. Byers Co.,** Pittsburgh, Pa.

Grover L. Michael, president of **McConway & Torley Corp.,** Pittsburgh, Pa., retired Dec. 31. **Richard E. Bowe,** secretary and treasurer, has been elected president and treasurer. **Donald Y. Clem,** executive vice president, also has been elected secretary.

Ajax Consolidated Division of Southern Electric, Inc., 4615 West 20th Street, Chicago 50, has appointed **F. A. Delano** as representative in the Southeastern United States, succeeding **W. E. Corr,** retired.

The **Westinghouse Air Brake Co.** has announced that its Le Roi division operations in West Allis, Wis.; Greenwich, Ohio, and certain functions of its Cleveland plant will be consolidated into one operating unit which will be established at Sidney, Ohio, next spring.

Edward L. Falls, Jr., vice president of **Motorola Communications & Electronics, Inc.,** has been promoted to executive assistant to the general manager of the Communications Division, **Motorola, Inc. Robert N. Swift,** vice president and manager of the midwest sales area, has been named to replace Mr. Falls with the subsidiary, and in turn is succeeded by **Robert F. Davis,** two-way radio sales manager for the midwest area.

Servo Corp. of America has announced acquisition, subject to approval of the California Corporations Commissioner, of **Electro-Pulse, Inc.,** Culver City, Calif. Electro-Pulse will continue to operate as an independent wholly-owned subsidiary.

F. Ray Martin Engineers, Inc., St. Louis, has announced purchase of **C. E. Smith & Co.** of St. Louis, a civil engineering firm.

Harry E. Schneider, manager of Plant Two, **Electro-Motive Division** of **General Motors Corp.,** has been appointed superintendent of the engine division, succeeding **Arthur A. Montes,** named general superintendent, Plant Two. **John L. Wagner,** assistant superintendent of the locomotive division in charge of locomotive rebuild, has been named superintendent of a newly created rebuild manufacturing department at LaGrange, Ill. **Verne L. Brandes,** assistant superintendent of the locomotive division, appointed superintendent of the division, to replace the late **William A. Schweinberg** (RA, Jan. 25, p. 36).

Herman A. Affel Jr. has been appointed general manager of the new computer division of the Government and Industrial group of **Philco Corp.** at Willow Grove, Pa.

Thomas Z. Hayward, vice president and member of the executive committee, of **Joseph T. Ryerson & Son, Inc.,** Chicago, has been appointed senior vice president. **Weaver E. Falberg,** general manager of sales, has been appointed vice president—sales.

Gordon Rowen Anderson has been appointed executive vice president—operations, **Fairbanks, Morse & Co.,** a newly created position. Mr. Anderson was formerly vice president and general manager of the Beloit (Wis.) division. **H. E. Hanson** has been named acting manager, Beloit division.

The business of **Union Tank Car Co.'s Graver Tank & Mfg. Co.** plant at Sand Springs, Okla., has been reorganized into a separate company which will operate as a division of Union Tank Car Co. The Salt Lake City, Utah, oil equipment assets of Graver Tank have been sold to **Symington-Wayne Corp.**

N. L. Harms, divisional vice president of **Symington Wayne Corp.,** has been named head of the corporation's newly formed foreign division, at New York.

Rush Winchester has been named distributor sales manager of the Wayne Pump Co. division of Symington Wayne Corp., at Salisbury, Md.

A. M. Byers Co., Pittsburgh, Pa., has appointed two new distributors to handle its 4-D wrought iron pipe. They are: **Hajoca Corp.,** Branch No. 32, Trenton, N.J., and **Mountain States Pipe & Supply Co.,** Colorado Springs, Colo.

Alfred P. Kivlin, who retired in Sept. 1959 as chief engineer, Freight Loading & Container Bureau, Association of American Railroads, has established himself as transportation consultant, with offices at 43 School Street, North Attleboro, Mass.

J. I. Bocinsky, plant superintendent of the North Salt Lake, Utah, branch of **Electro-Motive Division** of **General Motors Corp.,** has been appointed manager of the branch, to succeed the late **J. S. Chisholm,** (RA, Feb. 1, p. 28).

The Prime Manufacturing Co. has appointed **William J. Botensten** and **Albert E. Brown** regional sales managers at Haddonfield, N.J., and Richmond, Va., respectively. **George A. Legath** has been named assistant to general sales manager, and **Carl V. Barnes** has been appointed sales engineer, both at Milwaukee, Wis. **Bowman Supply Co.** has been named sales representative at Cleveland, Ohio.

J. R. Bohne, Jr., has been appointed a sales engineer for **Dana Corp.,** at Toledo, Ohio.

Eugene Hindin, vice president of **Strick Trailers division of Fruehauf Trailer Co.,** has been advanced to executive vice president, with headquarters at the Whitaker Avenue plant, Philadelphia. **Philip Orzeck,** sales manager, has been named vice president in charge of sales, at North Broad Street, Philadelphia. Both men will move to the Bucks County plant when construction is completed.

The Timken Roller Bearing Co.'s manufacturing operations in Canada, located at St. Thomas, Ont., have been renamed, **Canadian Timken, Division of the Timken Roller Bearing Co.**

T. J. Weisbruch has been named district manager of a new Indiana-Michigan district office opened by the **Dearborn Chemical Co.** at 3001 Fairfield Avenue, Fort Wayne, Ind.

Gray & Rogers appointed advertising agency for the **Symington-Gould Co.** Division of **Symington-Wayne Corp.,** effective March 1.

Charles F. Hoffman has been appointed advertising manager, Industrial Division, **Joy Manufacturing Co.,** with headquarters at the company's Pittsburgh executive offices.

J. H. Elsinger has been appointed district manager of a new sales district of **Signode Steel Strapping Co.** to have its headquarters at Jacksonville, Fla.

Carl C. Gobdel appointed district sales manager at the Philadelphia plant of **Joseph T. Ryerson & Son, Inc.** Mr. Gobdel was previously manager of stainless steel sales.

Three new sales representatives have been appointed by **L. B. Foster Co. Frank K. Gunther** and **Philip G. Hughes** have been added to the Pittsburgh office, and **William J. Bedford** will operate from the Los Angeles office. Mr. Gunther, who served previously with Jones & Laughlin Steel Corp., will specialize in sales of rail and track accessories.

Current Publications

PAMPHLETS

CAREERS IN THE AMERICAN RAILROAD INDUSTRY, by Charles O. Morgret. 32 pages, illustrated. Bellman Publishing Co., Cambridge 38, Mass. $1.

This newly-revised vocational monograph provides information for persons considering employment in the industry, including a listing of the number of employees and their annual compensation and a bibliography of railroad reading.

RECORDINGS

THUNDER ON BLUE RIDGE. Third in the series "Sounds of Steam Railroading," O. Winston Link Railway Productions, 58 East 34th St., New York 16. $5.95, postpaid.

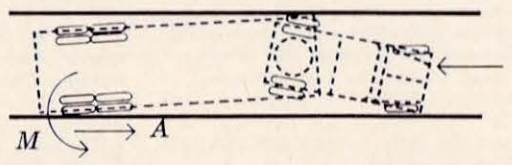
Tells a connected story throughout its 47-min entirety. High spots include a chilling multiple whistle, a double-header sequence of remarkable cadence and an on-the-caboose train break-in-two including voices of the crew.

AUTOMATIC ALIGNMENT FOR PIGGYBACKING

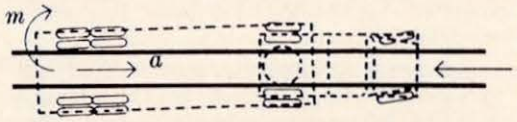
Loading and unloading General American's new G-85 Piggy-Back car is a time-saving, one-man job. The driver needs no assistance, he operates the tie-down hitch from the cab. What's more, the G-85 gives you more exclusive money-saving features than any other piggyback car:

- Fastest to load and unload!
- 10,000 pounds lighter than any other car for greater payload!
- Takes all trailers without modification—no dollies needed!
- Mix or match up to 85 feet of trailers, auto carriers, vans, tanks, containers!
- Needs no expensive loading or unloading equipment!
- Fully compatible with other piggyback cars!
- Only 3 feet from deck to rails for best clearance!
- Best protection against shock—absorber permits full 22 inch travel!

Call or write the General American office nearest you. In piggybacking, you'll find, *it pays to plan with General American!*



Backing a trailer onto a car with outer rails: *Tire contact with the rail "A" creates a moment "M" which increases misalignment. Tires scuff, rear wheels jam and the driver must pull ahead to realign.*



Backing a trailer onto a car with center guides: *Tire contact with the center guide "a" creates a moment "m" which automatically realigns the trailer. The momentary contact between tire and guide is much more gentle, as moment "m" is only one-half of "M".*

Piggy-Back Division

GENERAL AMERICAN TRANSPORTATION CORPORATION

135 South LaSalle Street • Chicago 3, Illinois

Piggy-Back GENERAL AMERICAN TRADE MARK

Offices in principal cities

MARKET OUTLOOK *at a glance*

Carloadings Drop 1.3% Below Previous Week's

Loadings of revenue freight in the week ended Feb. 13 totaled 580,103 cars, the Association of American Railroads announced on Feb. 18. This was a decrease of 7,830 cars, or 1.3%, compared with the previous week; an increase of 12,915 cars, or 2.3%, compared with the corresponding week last year; and an increase of 46,917 cars, or 8.8%, compared with the equivalent 1958 week.

Loadings of revenue freight for the week ended Feb. 6 totaled 587,933 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, Feb. 6

District	1960	1959	1958
Eastern	95,485	88,526	84,515
Allegheny	113,475	100,487	93,100
Pocahontas	51,563	49,420	42,561
Southern	108,502	109,335	104,182
Northwestern	63,754	62,476	60,873
Central Western	107,987	110,136	99,183
Southwestern	47,167	45,372	47,982
Total Western Districts	218,908	217,984	208,038
Total All Roads	587,933	565,752	532,396
Commodities:			
Grain and grain products	47,868	53,455	48,377
Livestock	3,923	3,780	4,276
Coal	110,821	113,273	104,237
Coke	11,292	8,531	7,041
Forest Products	38,652	35,651	36,655
Ore	20,875	14,795	13,740
Merchandise l.c.l.	38,569	42,761	46,412
Miscellaneous	315,933	293,506	271,658
Feb. 6	587,933	565,752	532,396
Jan. 30	601,900	582,456	550,532
Jan. 23	587,339	555,750	551,088
Jan. 16	605,757	586,342	572,886
Jan. 9	591,515	550,666	569,807
Cumulative total, 5 weeks	2,974,444	2,840,966	2,776,709

PIGGYBACK CARLOADINGS.—U. S. piggyback loadings for the week ended Feb. 6 totaled 10,696 cars, compared with 7,141 for the corresponding 1959 week. Loadings for 1960 up to Feb. 6 totaled 48,950 cars, compared with 33,211 for the corresponding period of 1959.

IN CANADA.—Carloadings for the seven-day period ended Feb. 7 totaled 67,031 cars, as compared with 85,531 for the previous 10-day period, according to the Dominion Bureau of Statistics.

Totals for Canada	Revenue Cars Loaded	Total Cars Rec'd from Connections
Feb. 7, 1960	67,031	31,847
Feb. 7, 1959	65,644	27,985
Cumulative Totals		
Feb. 7, 1960	335,616	155,568
Feb. 7, 1959	346,580	141,028

New Equipment

FREIGHT-TRAIN CARS

► *Baltimore & Ohio.*—Ordered 2,208 freight cars from its Dubois, Pa., shops. Order includes 2,000 50-ton hoppers (RA, Dec. 14, 1959, p. 37); 78 47-ft flat cars; 70 53½-ft flat cars; and 60 47-ft piggyback flat cars. Meanwhile, 40 41-ft demountable-body flat cars were delivered Jan. 22 by the road's Washington, Ind., shops.

► *Illinois Central.*—Ordered 150 70-ton twin hopper cars from American Car & Foundry Division of ACF Industries, Inc.; and 20 70-ton, 3,500-cu ft capacity Dry-Flo covered hopper cars from General American. Deliveries of ACF cars are scheduled for February and for second quarter 1960; delivery of Dry-Flo cars is slated for late second or early third quarter.

► *North American Car.*—Ordered 250 RB bunkerless refrigerator cars from Pacific Car & Foundry at a cost of $3,150,000. All cars will be 50-ton capacity and will be equipped with roller bearings. Order includes 150 44-ft cars for delivery in the spring and 100 40-ft cars for delivery next autumn.

LOCOMOTIVES—SPECIAL

► *Locomotive Ownership and Condition.*—Class I roads owned or leased 28,274 Diesel units on Jan. 1, an increase of 530 units over Jan. 1, 1959, according to AAR quarterly summary; steam locomotive ownership was reduced by 573.

	Owned or Leased Jan. 1		Stored Serviceable Jan. 1		Waiting Shops Jan. 1	
	1960	1959	1960	1959	1960	1959
Diesel (Units)	28,274	27,744	320	401	1,294	1,389
Steam (Locomotives)	711	1,284	260	409	386	571
Electric (Units)	541	559	49	65	82	76

Orders and Deliveries

► *Orders Decrease.*—Orders were placed in January 1960 for 7,149 freight cars, compared with 10,560 in December. January 1959 orders totaled 4,007. Deliveries in January totaled 2,849, compared with 3,032 in December and 1,940 in January 1959. The backlog of cars on order and undelivered as of Feb. 1, 1960, was 48,170, compared with 43,870 on Jan. 1 and 29,470 a year ago.

Type	Ordered January 1960	Delivered January 1960	Undelivered Feb. 1, 1960
Box—Plain	2,156	529	13,476
Box—Auto	0	0	500
Flat	895	318	3,799
Gondola	200	887	6,803
Hopper	2,700	643	17,265
Covered Hopper	231	144	1,253
Refrigerator	700	220	3,842
Stock	0	0	0
Tank	267	96	901
Caboose	0	12	180
Other	0	0	151
Total	7,149	2,849	48,170
Car Builders	3,934	1,613	24,649
Railroad Shops	3,215	1,236	23,521

(Continued on following page)

MARKET OUTLOOK (continued)

New Facilities

► *Alaska Railroad.*—Construction projects authorized for 1960 include replacing untreated ties with treated ties, $230,000; placing crushed ballast and replacing of untreated ties, $640,000; bank widening and sag elimination, $65,000; asphalt paving, $60,000.

► *Alton & Southern.*—Major projects include construction of second main track between MP 6 and 7 and rehabilitation of part of existing second main in Mile 6, East St. Louis, Ill., at an estimated cost of $202,810; alterations or relocation involving signaling and communications facilities and crossings, due to construction of highway overpasses at four locations near East St. Louis, $81,840; construction of 53-ft by 73-ft addition to back shop at 26th Street yard engine house, East St. Louis, $46,000; and extension of approach circuits and other changes at A&S-Southern interlocking plant, East St. Louis, $18,675. All work will be performed by company forces.

► *Canadian Pacific.*—Awarded contract for a new rail diesel car servicing shop at Glen Yards, Montreal, to Robert Miller Construction Co. Ltd. The one-story, steel-frame building is due to be completed this spring. Cost: $233,500.

► *Chicago Produce Terminal.*—Will construct a two-story, fully air conditioned office building to provide office facilities for 42 fruit and vegetable brokers. Cost of the project: $600,000. Chicago Produce Terminal, owned jointly by Santa Fe and Illinois Central, is used by 31 railroads. It's equipped to handle 2,500 cars at one time. Annual traffic through the terminal totals more than 50,000 cars.

► *Chicago Transit Authority.*—Awarded contract for $54,920 to Femco, Inc., (Irwin, Pa.) for 70 transistorized, portable two-way train telephones for use on CTA's north-south elevated-subway route.

► *Delaware & Hudson.*—Will provide complete radio coverage of its 764-mile system by expanding present facilities at a cost of $127,410. All trains, maintenance-of-way equipment, and highway vehicles will be included in the radio network. Work involves installation of 23 wayside stations and broadcasting facilities at Wilkes-Barre, Oneonta and Whitehall. Radio equipment will be installed on an additional 21 locomotives, making 164 so equipped. The number of pack-sets will be increased by 19.

► *Indiana Harbor Belt.*—Will equip 40 diesel units with transistorized 64-volt two-way radios ordered from Motorola. Order also includes equipment for base station and eight spare radio units.

► *Santa Fe.*—Plans three additional microwave installations in 1960: (1) San Bernardino to Barstow, Calif.; (2) Barstow to Seligman, Ariz.; (3) Amarillo, Tex., to Topeka, Kan. Microwave installations were completed in 1959 between Los Angeles and San Bernardino; and between Bakersfield, Calif., and Barstow.

► *Terminal Railroad Association of St. Louis.*—Major projects scheduled for 1960 completion include modernization of interlocking and construction of new tower at East St. Louis, Ill., at an estimated cost of $300,000 (RA, June 15, 1959, p. 35); and installation of automatic flashing light signals and short arm gates at eight grade crossings in St. Louis, Mo., at an estimated cost of $185,000. Work on both projects will be done by company forces.

ASME, AIEE Rail Meeting Set for April 20-21

The American Society of Mechanical Engineers and the American Institute of Electrical Engineers have slated a Railroad Conference April 20 and 21 at Pittsburgh's Penn-Sheraton Hotel.

Technical papers to be read the first day include: "The Slippery Spot Concept of Adhesion" by J. C. Aydelott, General Electric Co.; "Study of Defects that Originate and Develop in the Treads of Railroad Wheels During Service" by J. M. Wandrisco and F. J. Dewez, Jr., U. S. Steel Research Center, and "Understanding Wheel-Rail Adhesion" by G. M. Cabble, Jr., Westinghouse Air Brake Co. Also, "The World's Most Modern Ore Unloading Facility" by R. C. Tench, materials handling engineer, Chesapeake & Ohio; "French Technical Advances in the Field of Railroad Electrification" by F. Nouvion, French National Railroads, and "Forces Between Wheel and Rail" by F. F. Olson, Swedish State Railroads.

Luncheon speaker for the first day will be J. W. Barriger, president, Pittsburgh & Lake Erie, whose topic will be "Railway Electrification."

On April 21, the engineers will hear: "Locomotive Repair Costs and Their Economic Meaning to the Railways of the United States" by H. F. Brown, Gibbs & Hill, Inc.; "Electric Locomotive Maintenance Cost Equation" by J. W. Horine, electrical engineer, Pennsylvania, and "Spectrographic Analysis of Diesel Lube Oil" by J. C. Smith, General Electric Co. Also, "Automation in Railroading" by V. E. McCoy, chief purchasing officer, Chicago, Milwaukee, St. Paul & Pacific; "Automated Testing of Railway Freight Brake Control Valves" by P. W. Brath and E. T. Skantar, Westinghouse Air Brake Co., and "Air Cleaning Features for Traction Equipment" by P. G. Lessmann, Westinghouse Electric Corp.

Luncheon speaker for April 21 will be Dr. S. W. Herwald, vice president-research, Westinghouse Research Laboratories.

Dividends Declared

ALGOMA CENTRAL & HUDSON BAY.—25¢, quarterly; 6% preferred, 75¢, quarterly, both payable March 1 to holders of record Feb. 15.

CHICAGO GREAT WESTERN.—common, 50¢, quarterly, payable April 6 to holders of record March 15; 5% preferred, 62½¢, quarterly, payable March 31 to holders of record March 15.

DELAWARE & BOUND BROOK.—50¢, quarterly paid Feb. 20 to holders of record Feb. 13.

NORTH PENNSYLVANIA.—$1, quarterly, payable Feb. 25 to holders of record Feb. 18.

Washington Hears Aid Plea

► **The Story at a Glance: Chief executives of several eastern railroads last week went to Washington with Governor David L. Lawrence of Pennsylvania and mayors of several large cities to seek federal-assistance in their undertaking to solve commuter-service problems.**

The group was selling the commuter-aid program sponsored by the American Municipal Association and the eastern railroads—especially the proposal calling for federal loans to municipalities for purchase of commuter cars for lease to railroads (RA, Feb. 8, p. 10, Dec. 7, 1959, p. 9.)

Government officials in executive departments and Congressional leaders gave the group friendly receptions and sympathetic hearings—but evidently nothing in the way of commitments that the necessary legislation would be enacted this year. The group's spokesmen nevertheless said they felt "encouraged."

The railroad executives and municipal officials, in Washington last week on the commutation-service problem, had a full schedule, beginning with a session at the White House and concluding in a conference with the House's minority leader, Representative Halleck, Republican of Indiana.

In between were visits with the Secretary of Commerce, Frederick Mueller, and his undersecretary for transportation, John J. Allen, Jr.; the speaker of the house, Representative Rayburn of Texas, and its majority leader, Representative McCormack of Massachusetts; and the Senate's majority and minority leaders—Senators Johnson of Texas and Dirksen of Illinois, respectively.

The group also got what amounted to informal hearings before the Senate's Surface Transportation Subcommittee and the House's Subcommittee on Transportation and Aeronautics. These were public sessions at which spokesmen for railroad members of the party were Chairman J. M. Symes of the Pennsylvania and President George Alpert of the New Haven.

Spokesmen for the municipalities were Mayors Raymond R. Tucker of St. Louis, Richardson Dilworth of Philadelphia, Robert F. Wagner of New York, Anthony J. Celebreeze of Cleveland, and Frank P. Zeidler of St. Louis. Governor Lawrence of Pennsylvania also made a brief statement to the Senate subcommittee.

The federal-loan plan they propose is like that embodied in a bill, H.R. 10343, introduced recently by Representative Irwin, Democrat of Connecticut (RA, Feb. 15, p. 9). The official AMA bill will be a modified version of the Irwin bill, though not substantially different. It is expected to have different sponsors, however. Mr. Irwin "jumped the gun," as an AMA spokesman put it. He also said the AMA bill is expected to go into the Senate with at least 15 senators as joint sponsors.

Like the Irwin bill, the AMA bill proposed to create the lending agency as a corporation within the Department of Commerce. The corporation would be authorized to loan up to $500 million to municipalities for commuter equipment and facilities which would be leased to railroads.

In their public statements before the Senate and House committees, the mayors asserted that there would be no subsidy involved in this phase of the AMA program. They also said there was justification for federal intervention because the problem can't be solved locally, and problems of the country's "urban civilization" are a proper concern of the federal government.

Chairman Symes of PRR called the program a "very sensible one—one that will go a long way toward solving commuter-service problems." President Alpert of NH said that some such assistance as that proposed is called for if continuance of commutation service is essential as he thinks it is.

The NH president also took occasion to note how the federal government subsidizes air transportation. He said that federal aid to an airline with services into NH territory amounts to 3.9 cents per passenger-mile—while "we get 3.1 cents, all from the passenger."

Senator Smathers of Florida, chairman of the Senate subcommittee, assured the delegation that he would assign their bill for hearing as soon as possible after it was introduced. He pointed out that the committee has several other commuter-aid proposals on its calendar.

The meeting on the House side was attended by five members, including Representative Harris of Arkansas, Chairman of the Interstate Commerce Committee, and Repesentative Williams of Mississippi, chairman of the subcommittee. The only railroad spokesman there was President Alpert of the NH who briefed the statement he made to the Senate subcommittee.

Chairman Harris advised the group that their proposed bill would perhaps be referred to the House Committee on Banking and Currency instead of the Interstate Commerce Committee if it were introduced in its present form. The chairman went on to say he does not generally advocate writing a bill with a view to getting it referred to a particular committee, but he did want to advise that the Interstate Commerce Committee was the House committee best qualified to consider transport legislation. This, Mr. Harris added, might be something the group would want to call to the attention of those drafting its bill.

At the press conference which ended the group's day, a spokesman for AMA indicated that Mr. Harris' advice would not be followed. He also indicated that the Banking and Currency Committee might be considered more sympathetic —because it has "more members from the big cities." The Irwin bill has been referred to Banking and Currency.

Chairman Symes of PRR said he was "very well pleased" with the day. President Alpert of NH said he was "very much encouraged."

As the Publisher Sees It . . .

Passenger trains have been a bit more heavily patronized lately. One obvious reason is that they nearly always "land" where they're scheduled to (and pretty much on time, I might add).

Mrs. Eleanor Roosevelt knows that, too. A Trans-World airliner scheduled to take her from New York to Pittsburgh for an evening speaking engagement the other day overshot the mark and disembarked the former first lady at Columbus. Along with other passengers, she was placed aboard a Greyhound for the 200-mile trip back to Pittsburgh. Tied up about 60 miles short of destination in what the press described as a "six-mile highway snarl" (it was snowing), state police picked her up for the run to Pittsburgh. She arrived just in time to catch the Pennsylvania's "Pittsburgher" back to New York!

No further comment.

Robert S. Lewis

Arbitration Talks Take Shape

► **The Story at a Glance: First step toward settlement of the BLE wage dispute will be taken this week in Washington, D. C., when industry and union representatives and the NMB start work on an arbitration agreement. If history is a guide, settlement—via an arbitrators' award—could come in 12 to 18 weeks.**

Meanwhile, there are indications that the work rules dispute may get off dead center next month. Industry sources wouldn't be surprised if an initial move to get the dispute up for national handling were made sometime after March 1.

Management and the Engineers were scheduled to sit down Feb. 22 to work out the "ground rules" under which their wage dispute will be presented to a six-man arbitration board. The arbitration agreement will set up a specific outline of the points to be decided—presumably, the carriers' demand for a 15-cent-an-hour wage reduction and elimination of the cost-of-living escalator vs the BLE's demand for a 12% wage increase and continuation of the escalator provision.

The stakes will be high, in an industry where a cent-an-hour pay boost (applied to all employees) costs in the neighborhood of $20,000,000 annually.

Thus far, neither management nor the BLE has named its representatives on the arbitration board. Last time the Engineers went to arbitration (in 1954) they chose T. J. Harkins, an assistant grand chief engineer; and D. S. Beattle, director of research and statistics for the brotherhood. Carrier representatives were AAR President Daniel P. Loomis, then chairman of the AWR; and PRR Vice President—Personnel J. W. Oram, then an assistant VP.

Only the union has made a proposal regarding the two "neutral" members to be named (either by the carrier and union members or by the NMB, if the industry-BLE representatives can't agree). The Engineers are suggesting that the neutrals be chosen from a list of six—including the two neutrals who served on the '54 board which rejected the BLE's case.

Recent experience with the arbitration process would indicate that an award could come in about 12 to 18 weeks after the parties agree to arbitrate. Board 192, which heard the BLE case in 1954, began hearings a month after the agreement was reached (selection of neutrals took two weeks). Hearings progressed for three months and an award came two weeks later. Board 201, which arbitrated a case involving SUNA in 1954-55, completed hearings in less than a month, then took another month before an award was made. The SUNA board was also delayed initially when carrier and union members were unable to agree on a neutral.

There are indications that the carriers will point up the work rules dispute in arguing the wage case—the contention being that waste of the proportions charged to archaic work rules predicates against higher payroll costs. The economic position of the industry is also expected to figure strongly (total estimated net income of Class I roads last year: $574,000,000; rate of return: 2.72%).

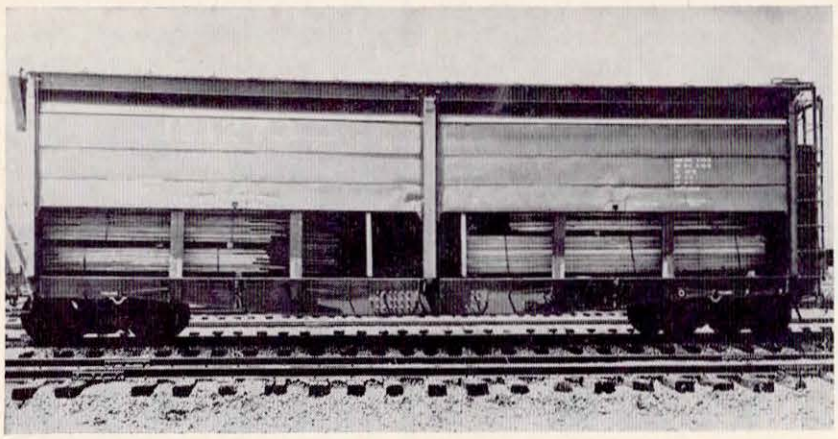
BLE Grand Chief Guy L. Brown, however, thinks the Engineers will be at least as well off in arbitration as they might have been before an emergency board.

He suggested that "the carriers, although their spokesmen were urging us to accept arbitration before we announced our decision, are not really at all happy with the fact that we did accept it. With recent settlements in other industries being what they were, an arbitration board isn't likely to treat railroad engineers as second-class citizens."

The other half of the industry's contract problems—the work rules dispute with the ops—remained quiet last week. But again there were signs of life. One estimate: Action, in the form of requests for conference committee negotiations, may come next month. Thus far, only SUNA has filed counter-demands to the carriers' rules revision proposals.

In other rail labor developments:

- President Eisenhower created an emergency board to hear a dispute involving engineers on Santa Fe's Coast Lines. A union source said the case involves a Section 6 notice originally served in 1956, held in abeyance during the three-year moratorium and reactivated last Nov. 1. Among the issues in dispute: guaranteed mileage for extra-board engineers; a greater differential for yard and way freight service; payment for use of radio-telephone, for all final terminal delay, for engine changes en route, for time spent in cooling or heating trains preparatory to departure. Twice, the BLE set a strike date. Once, late last year, Santa Fe obtained a temporary restraining order to head off a walkout (RA, Dec. 14, 1959, p. 7). But, after further mediation efforts by the NMB, the BLE set another strike date (Feb. 10) and creation of the emergency board followed.
- Two unions—the BLF&E and BRT—struck Phelps Dodge Corp. at two copper mines in Arizona. The company recently settled with the Mine, Mill & Smelter Workers Union on a 33.2-cent package, but the rail unions reportedly rejected a similar settlement.



Southern Lumber Car Has Roll-Up Sides

A lumber car, tailored to needs of fork lift loading and unloading, has been designed by Southern to fight highway competition. Each side is composed of two hinged-panel type doors which can be rolled up under the roof. The 70-ton car has an inside length of 42 ft 8 in. that can be subdivided by two aluminum bulkheads which can be fixed at any location through the car. Removable center post and metal stakes at other points along side sills prevent shifting of loads against side doors during transit. Light weight of car is 75,400 lb.

8 Don'ts of 'Upward Communications'

One mark of a good supervisor is his ability to keep channels of communications open—both up and down in the organization. The downward flow of information in a company probably gets more attention since this is the normal route of orders and instructions from the top.

The PRR, however, has taken a look at the other side. The road's monthly newsletter, the Personnel Manager, lists eight benchmarks to help the supervisor improve the flow of information "up the ladder."

1. Don't try to shield the boss. You lessen your effectiveness as a manager if—even with the best intentions—you try to build a wall around your superior and prevent his hearing anything that will upset him.

2. Don't use "upward communications" to blow your own horn. Solid accomplishment is your best press agent. Constantly reminding the boss about how well you're doing will probably do nothing but get on his nerves.

3. Don't try to "over-protect" yourself. When things go wrong, the wise thing to do is make sure your superior has the full story, even if it means admitting mistakes.

4. Don't think the need to discuss a department problem might just disappear if you don't say anything. This is a matter of judgment; sometimes it can be all right. But if you decide to postpone action, be sure your decision is based on the merits of the case and not on a wishful hope that the problem will solve itself.

5. Don't be afraid of the results of communicating. Telling the boss about a difficulty may get you the job of eliminating it. That may mean extra work. But a supervisor, with management responsibility, can't safely rely on the soldier's attitude to "Never Volunteer."

6. Don't neglect to communicate because you may not be directly responsible. If you fail to communicate because the idea you get "is none of my business" you deprive the company of a portion of your value. Tell your superior; if the idea has merit, it's up to him to put it before the right people.

7. Don't rely on someone else to send the word upstairs. If you pass the buck the boss may eventually get the information from someone else. But by then it may be too late for him to take action.

8. Don't think you have to have the solution before you discuss a problem. Suppressing information may not be as considerate as you think. Neither you nor the boss has all the answers, of course, but if you tell him about your problem at the right time, just talking about it may put the matter in different perspective and give both of you fresh ideas.

Soo Line Proposes Volume Rate

Soo Line is making a second move in the direction of the agreed charge theory of rate-making. A proposal to establish an "annual volume rate" on fuel oil has been placed before the Western Trunk Line committee.

In basic outline, the new proposal follows the pattern set by Soo Line's proposed guaranteed rate on pipe moving from Sault Ste. Marie, Ont., to Chicago. As yet, the guaranteed rate hasn't been approved by the ICC. Latest extension (by Soo Line and DSS&A) sets the effective date back to April 9 (RA, Feb. 15, p. 7).

The volume rate on fuel oil would apply from Superior, Wis., to six points in upper Michigan (Eagle Mills, Humboldt Mine, Ishpeming, Marquette, Negaunee and Republic Mills) where the use of residual fuel oil is expected to increase substantially over the next five years.

The present rate is 26 cents per hundredweight in volume lots of five or more carloads moving under one bill of lading. Under the annual volume proposal, the rate would be 24 cents per 100 pounds on quantities of 5,000,000 to 10,000,000 gal. annually; 22 cents if total shipments are 10,000,000 to 20,000,000 gal.; and 20 cents if total traffic is in excess of 20,000,000 gal, annually. Rates would be in effect initially from June 1, 1960, to May 31, 1961.

Conditions similar to those applying to the guaranteed rate would be in effect on the volume rate:

- Freight charges would have to be prepaid.
- Shipper would be required to signify in writing his intention to use the special rate, would then be required to keep records of volume and make them available to rail representatives.
- Shipper would have to furnish an indemnity bond, guaranteeing to pay on demand the regular 26-cent rate on all fuel shipped if the total volume during the year fell under the minimum needed to earn a discount.

Ross L. Thorfinnson, Soo Line vice president—traffic, said his road views the rate-making principle as "one of the best ways in which U. S. railroads can provide low-cost transportation of goods for their patrons. If the railroads are going to meet the demands of competition, they must make rates designed to attract business at a profit—and they must also offer an incentive to shippers. This proposal covering residual oil is that kind of rate—as is our guaranteed rate on pipe.

"The assurance of volume permits the establishment of a lower rate without dissipating revenues. It also permits planning to meet equipment and service needs."

ACF Optimistic for Future Of Railroad Supply Industry

ACF Industries takes a definitely optimistic view of near-future prospects, for itself and for the railway supply industry in general. That was the undercurrent running through a Feb. 11 talk to the New York Society of Security Analysts by W. T. Taylor, ACF board chairman.

"The dwindling serviceable freight-car fleet," Mr. Taylor said, "is near an 18-year low. Reported increases in railroad equipment budgets for 1960 are indications of better times ahead in the car-building industry." Also: "Because of many improvements and new developments in equipment geared to shippers' needs, we know there are growth possibilities in addition to the general need for new cars. . . . Commuter problems across the country will be faced sooner or later, and when they are there will be a rebirth of passenger-car manufacture."

You Ought To Know...

Management doesn't think a strike over the featherbedding issue is inevitable, AAR Vice President J. Handly Wright said in San Francisco last week. He said the railroads believe that union leaders ultimately "will drop their torrent of abuse" and join management in calm and dispassionate discussion of the issue. He emphasized management's determination to end featherbedding. He said the industry "cannot and will not allow this punishing problem to be talked away."

Discontinuance of its last remaining passenger service is being sought by Minneapolis & St. Louis. The road wants ICC authorization to take off Trains 13 and 14 operating between Minneapolis, Minn., and Watertown, S. Dak.

Eastern railroads have set their sights on "elimination of taxes on our rights-of-way," ERPC Chairman David I. Mackie said in Rochester, N.Y. "Since it is national policy to treat our so-called 'highways of commerce'—roads, airways, canals —as precious national assets and to keep them free of taxation," he asked, "why, then, should this policy not apply to the railroads? Certainly, in terms of the tonnage they carry, these are the most important transportation arteries of all."

Washington action "to clear away the tangle of transportation policy inequities now denying the public radical improvements in train service" was called for last week by AAR President Daniel P. Loomis. In an address before the Atlanta Freight Bureau, he noted President Eisenhower's recent expression of concern about the railroads—and urged his audience to help "in securing administration backing and Congressional passage of legislation" to implement the industry's program.

A Big Four (NYC) fireman, 37-year-old Russell A. Weller, is the winner of the BLF&E's second annual "fireman of the year" award. The brotherhood said Mr. Weller jumped from the cab of his locomotive to save the life of a woman who had fallen on the tracks in front of a moving cut of cars. The incident happened last May 18 at Anderson, Ind. Mr. Weller is scheduled to receive the award in Washington March 30.

Alco's new DL-640 locomotive was shown to Midwest railroad executives at Chicago's Dearborn Station last week. Alco reports that one railroad that's tested a DL-640 two-unit combination estimates that it could save more than $400,000 annually in fuel costs alone with 15 of the new high-speed units, which it said could replace 30 of its present locomotives. (RA, Feb. 15, p. 18.)

Newest Trailer Train member is Chesapeake & Ohio. Principal factors in the road's decision to join the piggyback equipment pool, according to a company spokesman, were "economy, availability and uniformity." Other recent Trailer Train recruits: Milwaukee, Texas & Pacific, Kansas City Southern, Union Pacific (RA, Feb. 1, p. 6).

Reduced fares on North Western's Chicago-Twin Cities streamliners will remain in effect until June 30, 1960. The bargain rates, comparable to bus fares, were established last June and were due to expire at the end of this month. Companion bargains on the Dakota "400" trains are budget meals—luncheon or dinner at $1.25—and reduced round-trip parlor car rates.

"Flying squads" of car cleaners are now sprucing up Long Island commuter trains while they highball along the track. What LIRR calls a "new wrinkle in the ancient art of railroad housekeeping" is getting its first workout on trains that don't lay up at their terminals long enough for a thoroughgoing cleaning. The idea will be expanded to other trains later. It's part of a general overhaul of car-cleaning practices instituted by the railroad following a study made by outside cleaning experts.

A sweeping stabilization-of-employment demand has been served on at least one railroad (C&NW) by the non-ops. The unions reportedly are demanding that the carrier restore jobs which have been abolished, become vacant or subject to furlough since last May 9; and that in the future no position coming under the agreement shall be abolished or the incumbent furloughed except by agreement between union general chairmen and the railroads.

A special train, sponsored by the Railway Electrical and Mechanical Supply Association for its members and railroad officials, has been arranged for the 44th annual meeting and convention of the AAR Mechanical Division and Electrical Section, Engineering and Mechanical Divisions in San Francisco June 13-16. The special will leave Chicago June 10 at 1:00 p.m. (CST) via RI, D&RGW and WP, and arrive in San Francisco the evening of June 12. Through arrangements with the participating railroads, passes will be honored without the half-fare charge.

COMING NEXT WEEK . . .

A Trucker Speaks His Mind

What's the future for Plan V piggyback? Can cooperation between motor carriers and railroads help solve small-shipment problems? What's needed to overcome the threat created by the growth of unregulated trucking? Would a motor carrier be willing to invest in rail equipment to promote TOFC development? J. L. S. Snead, Jr., president of Consolidated Freightways (the nation's biggest motor common carrier), has some definite opinions on these—and other—questions. See Railway Age, Feb. 29.

THE DEVELOPMENT OF AMERICAN INDUSTRIES

by John G. Glover and Rudolph L. Lagai

This recently published book surveys the varied, underlying role of industry in the economic growth of the United States from agrarian colonial times to the present atomic era. It presents a cross section of 36 representative industries. Each section is presented in a similar way, thus permitting the student or business executive to relate the important aspects of any one industry to those of any other. Coverage of the history and development of the railroad industry in the United States is particularly thorough. 1959. 835 pp. 40 illus. 6 x 9. $7.50

FUNDAMENTALS OF PROFESSIONAL MANAGEMENT

by John G. Glover

This authoritative new book presents an up-to-date treatment of the principles of management. It presents a systematic approach to the subject with broad coverage of the field from the underlying philosophy of management to the work-saving potential of automation. Thorough treatment of the basic principles of management makes the book invaluable for both the student and the younger executive. More advanced materials on such subjects as research resources, budgetary control, linear programming and automation provide a strong appeal for the seasoned executive who seeks an authoritative and compendious statement of the more recent developments in management techniques. 1958. 406 pp. illus. 6 x 9. Cloth. $6.50

Simmons-Boardman Publ. Corp., Dept. RA 2-22
30 Church Street
New York 7, New York

Please send a copy of the book checked below post paid. I enclose my remittance herewith.

☐ THE DEVELOPMENT OF AMERICAN INDUSTRIES $7.50
☐ FUNDAMENTALS OF PROFESSIONAL MANAGEMENT $6.50

Name .....
Street .....
City ..... Zone ..... State .....

Advertisers' Index

Allied Chemical Corp., General Chemical Division Back Cover
American Steel Foundries 20-21
Association of American Railroads ....Inside Front Cover
Brenco, Inc. 11
Chipman Chemical Company, Inc. 8
Erman-Howell Division Luria Steel & Trading Corp. .. 37
General American Transportation Corp. 30
Koppers Company, Inc. 15
Magor Car Corp. 23
Miner, Inc., W. H. 3
Panama Canal Company 37
Rail & Industrial Equipment Company, Inc. 37
Railway Education Bureau 37
Striegel Supply & Equipment Corp. 37
Symington-Gould Corp. .....Inside Back Cover
Teletype Corp. 4
Union Switch & Signal Division of Westinghouse Air Brake Company 17
Weiss Company, B. M. 37

CLASSIFIED ADVERTISEMENTS

FOR SALE
REBUILT
RAILROAD CARS FOR INTERPLANT USE
GONDOLAS • BOX • FLAT
ERMAN-HOWELL DIVISION
LURIA STEEL & TRADING CORP.
332 South Michigan Avenue
Chicago 4, Illinois
WEbster 9-0500

POSITION OPEN

Track and Signal Supervisor wanted by U.S. Government operated railroad in the Panama Canal Zone. Applicant must be qualified to supervise all track and signal maintenance and construction on fifty mile railroad. Write, giving experience, age, and salary expected to:

E. A. Doolan, Personnel Director
Panama Canal Company
Drawer 2012
Balboa Heights, Canal Zone

FOR SALE

Baldwin Diesel Electric 120 Ton, 1000 H.P. Switcher. Rebuilt 1955 less than 2000 hrs. since rebuilt. Bargain Price. STRIEGEL SUPPLY & EQUIPMENT CORP., 307 Jack Street, Baltimore 25, Maryland. Phone ELGIN 5-7922.

APPRENTICE TRAINING

Since 1909, the Railway Educational Bureau has trained men for a number of major railroads. We furnish the texts, questions and grading service for all technical instruction covering 3- or 4-year programs. The study programs are raising the skill and usefulness of apprentices on many railroads today. The Bureau is staffed and its texts authored by railroad men. Information is available describing methods used and fields covered. Also special help is available for advancement. THE RAILWAY EDUCATIONAL BUREAU, 1809 Capitol Avenue, Omaha 2, Nebraska.

ENGINEER WANTED

Young track supervisor with engineering background or engineer with track background for Chicago area belt railroad. Unusual employee benefits. Central location. Wonderful future. Apply Box 160, RAILWAY AGE, 79 W. Monroe Street, Chicago 3, Ill.

SALE OR RENT

1—45 Ton G.E. D.E. Loco.
1—65 Ton Porter D.E. Loco.
1—Betts-Bridgeford Axle Lathe

B. M. Weiss Company
Girard Trust Bldg.
Philadelphia 2, Pa.

KEEP BUYING U.S. SAVINGS BONDS

Looking for a job?
Looking for a man?
use this space to
get reliable leads
quicker results
EMPLOYMENT OPPORTUNITIES
SECTION
Railway Age, 30 Church St., New York 7, N. Y.

Scared to Talk About Transport?

There is an inexplicable and even sinister lack of public debate on this country's profligate public expenditures for transportation—and the continued delay in the adoption of a consistent national policy toward transportation development.

Government is spending more of the taxpayers' money on transportation than for any other one purpose—except national defense. The debate on defense expenditures is vigorous and continuous, and healthy. How much can we afford to spend, in total? How much of the total should go for space exploration? For atomic missiles? For conventional weapons?

Newspapers and TV waves are full of this debate. But what authoritative voice do we ever hear—questioning whether government can afford to spend what it is spending on highways, airways, waterways? Or whether, even if we can afford to spend this kind of money, we are dividing the expenditures wisely, and in order of merit, among the several varieties of transportation?

Government authorities and the leaders of public opinion are strangely silent about the obvious and fundamental questions regarding government's colossal and undisciplined expenditures for transportation. The "see no evil, hear no evil, speak no evil" attitude goes further—it carries over to our top economists, and even to the spokesmen for a "conservative" approach to economic and political issues. Some specialized transport economists* have spoken out on these questions—but the leaders who command national attention are seldom heard from, and never with appropriate emphasis.

•

What kind of tranquilizing pills are our opinion leaders taking, anyhow? They certainly are articulate enough on the socialistic danger in the government's electric power program—which is only a fraction as large and only a fraction as socialistic as government's invasion into transportation.

Government has enthusiasts for highway, air and waterway transportation—in government departments and in Congress; and these enthusiasts cooperate closely with special interest business groups. The result is colossal highway, air and waterway programs, dictated and largely financed by the federal government. These programs are developed independently, with no consideration as to the effect on private investment in other kinds of transportation—railroads particularly.

Nobody knows for sure whether government's development programs for highway, air and waterway transportation may not leave the country poorer rather than richer in transportation efficiency, for all the money being spent. If railroads are impoverished as a result of inordinate profligacy in hot-housing other transportation, has the country's net transportation situation been improved?

What is needed is an objective look at all agencies of transportation and at what each can offer —compared to the others—in relation to the nation's total transportation needs.

•

In Britain, the railways have succumbed to nationalization—but, at least, Britain has not gone ahead blindly, developing highways and air transportation on a colossal scale, with no consideration of transportation as a whole. In a thoughtful address to the British Association for the Advancement of Science last September (published as a pamphlet by the British Transport Commission) Sir Reginald Wilson, member of the BTC, raises all the pertinent policy questions. He draws attention to the continuing superior economy of railroads for many transportation tasks.

Significantly, he points out that "nationalization makes in itself no contribution to the analysis and assessment of the social economics of transport." In other words, no evasive expedients, such as nationalization, will enable a country to avoid, indefinitely, the necessity of developing a rational and unbiased transportation policy.

Railroad people have the right and duty to demand, insistently, that transportation policy in this country get the intelligent consideration at high governmental levels, such as Sir Reginald Wilson and other leaders are giving it in Britain.

There is nothing extraordinarily complex about the problem—sufficient to excuse inattention to it by this country's opinion leaders. Their hesitancy to tackle it inevitably raises the suspicion that they do not relish a clash with the special interest groups that are thriving on current transportation chaos.

*E.g., James C. Nelson in Autumn, 1959, issue of "Law & Contemporary Problems" (Duke University).

GREATER SAFETY... AND LONGER SERVICE LIFE

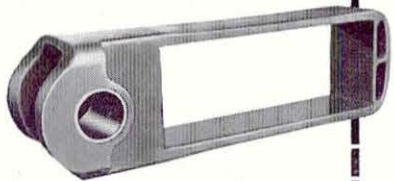
A. A. R. Type H
Tightlock Coupler
H-80

Symington®-Gould

TYPE H INTERLOCKING COUPLERS

Yoke Y-65—
Standard Pocket for
Twin Cushion
Draft Gear
Application

Radial
Connection
Y-25-A



Yoke Y-50—Standard Pocket
for Conventional
Draft Gear Application

CARS EQUIPPED WITH SYMINGTON-GOULD TYPE H TIGHTLOCK COUPLERS

intercouple with existing standard couplers with reduced contour slack. These couplers insure positive engagement when coupling at slow speeds. Eliminate slack in coupler contour as well as noise resulting from such slack. With Symington-Gould Type H Tightlock Couplers fatigue failures are reduced and service life is extended.

THE Symington-Gould Company

DIVISION OF SYMINGTON WAYNE CORPORATION

GEARED TO PROGRESS
P R I
MEMBER

WORKS: DEPEW, NEW YORK

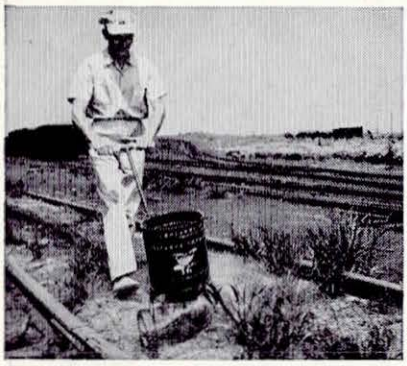
NEW YORK • CHICAGO • BOSTON • PHILADELPHIA • SAN FRANCISCO • ST. LOUIS

IN CANADA: ADANAC SUPPLIES, LTD., MONTREAL, QUEBEC

Kill more weeds...per mile...per dollar!

with GENERAL CHEMICAL UROX® Weed Killer

Liquid UROX can be shipped to you conveniently by rail in tank cars for spraying along right-of-ways. It kills all weeds fast, regardless of weather, usually wilts them back within 10 to 12 hours. Compare this fast action with other weed killers which take up to 2 weeks to kill!



Granular UROX is especially well suited for controlling weeds and brush in railroad yards, on spurs, sidings, around storage depots and other railroad installations. Application can be made easily and quickly with ordinary mechanical or hand-operated spreaders.

That's right! With General Chemical's powerful acting UROX Weed Killer you can actually kill *more* weeds—stop 'em in *your* tracks faster, easier, for a longer time, and at lower cost than you ever thought possible. *UROX is so effective just 1 application will wipe out weeds and brush for as long as 8 to 18 months!* Results carry over, too! Because the effects of UROX are cumulative, herbicidal action can be continued year after year with small "booster" treatments.

Where deep-rooted brush and weed-trees are a problem, use General Chemical's new URAB* Weed Killer. URAB actually penetrates the soil to kill deep roots. Does what no other herbicide can! For outstanding railroad weed control—lower maintenance costs—include UROX and URAB Weed Killers in your maintenance program *this season!* Write today for free literature, or ask to have a representative call.

*Trademark of Allied Chemical Corporation

Allied Chemical

GENERAL CHEMICAL DIVISION
40 Rector Street, New York 6, N. Y.